Relativistic vs. non-Relativistic

Space-Time Values

Appendices

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1.0 Introduction

The table examines 39 velocity values, ranging from |1.000~000E-500| m/s to
c-|1.000~000E-500| m/s, all calculated to 2000 decimal places .

$$velocity_{SRPD} = velocity_{noSRPD}/(1- velocity_{noSRPD}^2/ c^2)^{1/2}$$
$$velocity_{noSRPD} = velocity_{SRPD}/(1+ velocity_{SRPD}^2/ c^2)^{1/2}$$

This table is for Relativistic Velocity values only, but they are completely applicable for the Relativistic Length, Time, and Mass equations as well. Tables on those equations are available on request. The occasional tiny difference between the $Velocity_{noSRPD}$ (the velocity with no Relativistic Distortion) and the $Velocity_{noSRPDBack}$ (the "Real||noSRPD" velocity calculated from the distorted $Velocity_{SRPD}$) is simply due to irrational numbers (like square roots). You can never determine a value like $2^{1/2}$ exactly because it is irrational - the answer always has an infinite number of decimal places in random digits. The maximum error for calculations done to 2000 decimal places was found to be 1.0E-1992. But the maximum error for calculations done to 1000 decimal places was 1.0E-992; the maximum for calculations done to 100 decimal places was 1.0E-92. Surely that makes the irrational number set argument inarguable.

The software used was Advanced Smart Math Calculator, a product available from the Software firm RUNITER COMPANY, and their site at http://calculator.runiter.com/math-calculator/. The owner, Saeid Nourian [president@runiter.com], has seen both the tables and an earlier text of the theory, so can confirm the numeric validity of the tables. Of course, he is a Systems person, not a Physicist any more than I am, so you can take it for what it's worth. But numbers don't lie to ANYBODY.

Appendix A - Principle Relativistic Perspective Equations

The principle Relativistic Perspective equations:

$$velocity_{SRPD} = velocity_{noSRPD}/(1 - velocity_{noSRPD}^2/c^2)^{1/2} \qquad \text{Equation 1}$$
$$velocity_{noSRPD} = velocity_{SRPD}/(1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 2}$$

Can be re-written as:

$$velocity_{noSRPD} / velocity_{SRPD} = (1 - velocity_{noSRPD}^2/c^2)^{1/2}$$

and

$$velocity_{SRPD} / velocity_{noSRPD} = (1 + velocity_{SRPD}^2/c^2)^{1/2}$$

So instead of the "Classic" format of the Einsteinian equations; those equations can be used to reason that:

$$time_{noSRPD} = time_{SRPD}/(1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 3}$$
$$time_{SRPD} = time_{noSRPD}*(1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 4}$$
$$mass_{noSRPD} = mass_{SRPD}/(1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 5}$$
$$mass_{SRPD} = mass_{noSRPD}*(1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 6}$$
$$length_{noSRPD} = length_{SRPD} * (1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 7}$$
$$length_{SRPD} = length_{noSRPD} / (1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 8}$$
$$Time' = Time / (1 - velocity_{noSRPD}^2/c^2)^{1/2} \qquad \text{Equation 9}$$
$$Time = Time' / (1 + velocity_{SRPD}^2/c^2)^{1/2} \qquad \text{Equation 10}$$

7.0 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table

The following are tables that will show the relationship between real (non-Relativistic) and Relativistic velocity. Both the SRD (Special Relativity Distorted) velocity are shown and the noSRD (velocity with no Special Relativity Distortion) are shown. They share a direct relationship with one another. The pairing of:

$$(1- velocity_{noSRD}^2/ c^2)^{1/2} \;\|\; (1+ velocity_{SRD}^2/ c^2)^{1/2}$$

- exists for all the relativistic equations. The calculations are done to two thousand decimal places. Additional variables:

$velocity_{noSRD}$ - rest velocity with no relativistic distortions
$velocity_{SRD}$ - apparent velocity with relativistic distortions
$velocity_{noSRDback}$ - rest velocity calculated from apparent relativistic velocity
c - Speed of light (299,792,458 m/s)

Because of the nature of the software, values that would not appear in the display, would be included in the calculations. So some calculations show a maximum difference between the $velocity_{noSRD}$ value and the $velocity_{noSRDback}$ value of ±1.0E-1992 even though the responsible digit would not be displayed. It is a simple consequence of the fundamental irrationality of relativistic values, multiplied by the speed of light (i.e. the uncertainty is of the order of ±1.0E-2001→±9.0E-2001; on a random the basis be great enough to be off by whatever is the precision multiplied by 299,792,458). Higher precision values will be produced upon request, though it may take a few weeks to actually calculate them to 3000 or 4000 decimal.5+9

The table examines 39 velocity values, ranging from 1.000~000E-500 m/s to c-1.000~000E-500 m/s.

$$velocity_{SRD} = velocity_{noSRD}/(1- velocity_{noSRD}^2/ c^2)^{1/2}$$
$$velocity_{noSRD} = velocity_{SRD}/(1+ velocity_{SRD}^2/ c^2)^{1/2}$$

7.0.1 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table

Non-Relativistic Velocity: 1.000~000E-500

$velocity_{SRD} = 1.000{\sim}000E\text{-}500/(1\text{-}(1.000{\sim}000E\text{-}500)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{SRD}$= 1.00000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000~
000000000000000000000000000000000000000000000000005563250280268092160 87~
0449824240049958037662172374811872331174397734555006739336786868712508~
8632449129332357521177227148737434556981606052088155541386698038075204~
0843238379474128033650615074606794884223518170865385666624609728176529~
3976018996642357554571785935907281611366255187569799655782414732695524~
8130476446264088097179349760012421150237958882052284207378661237276325~
5899601367870327466625191994180696970961857561949685458377497060513151~
6547054179072755885500416688725294616769166265840905661225009682485021~
3622627242593844554754037786071346671001972768885087846565735326089829~
5399482653888788314430969733674674793275458148238105680539877584320313~
6154084060451832085262560511512915459998452216143366725002027891548321~
9766609116050028164966557917906994373950026539811338886104134619740152~
1232078661797005978551782981569186181342956047083014518960094779063501~
2182529084936518352282266348016180103279804964290751320212148294754414~
8603826209755555534118743818421358458027360745133 0210E-500

$velocity_{noSRDback} = (1.00000{\sim}30210E\text{-}500)/(1+(1.00000{\sim}30210E\text{-}500)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.00000~00000E-500

$velocity_{noSRDback}$ =1.000~000E-500

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-500 - 1.000~000E-500

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.2 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-400

$velocity_{SRD} = 1.000\text{\textasciitilde}000E\text{-}400/(1\text{-} (1.000\text{\textasciitilde}000E\text{-}400)^2/299,792,458^2)^{1/2}$

$velocity_{SRD}$= 1.0000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
00000000000000000000000000000000000000000000000000000000055632502802~
680921608704498242400499580376621723748118723311743977345550067 3933678~
686871250886324491293323575211772271487374345569816060520881555 4138669~
803807520408432383794741280336506150746067948842235181708653856 6662460~
972817652939760189966423755457178593590728161136625518756979965 578241~
473269552481304764462640880971793497600124211502379588205228420 737866~
123727632558996013678703274666251919941806969709618575619496854 5837749~
706051315165470541790727558855004166887252946167691662658409056 6122500~
968248502136226272425938445547540377860713466710019727688850878 4656573~
532608982953994826538887883144309697336746747932754581482381056 8053987~
758432031361540840604518320852625605115129154599984522161433667 2500202~
789154832197666091160500281649665579179069943739500265398113388 8610413~
461974015212320786617970059785517830279938167026974650142758297 1432860~
164965746861133562916942150006782030768485188838499121466769641 0907146~
745161571460184591641855521445044020190946054688903650488758932 0102346~
679217933053914222475500550019412378790483680896362960570867453 9992564~
767265821137876080061634489707414067439087080439363583037724370 5600878~
384265832312454555470460021427735347645943848569 2530E-400

$velocity_{noSRDback} = (1.00000\text{\textasciitilde}92530E\text{-}400)/(1\text{+} (1.00000\text{\textasciitilde}92530E\text{-}400)^2/299,792,458^2)^{1/2}$

$velocity_{noSRDback}$ = 1.00000~00000E-400

$velocity_{noSRDback}$ =1.000~000E-400

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-400 - 1.000~000E-400

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.3 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-300

$velocity_{SRD}$ =1.000~000E-300/(1- (1.000~000E-300)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000000000~
5563250280268092160870449824240049958037662172374811872331174397734555~
0067393367868687125088632449129332357521177227148737434556981606052088~
1555413866980380752040843238379474128033650615074606794884223518170865~
3856666246097281765293976018996642357554571785935907281611366255187569~
7996557824147326955248130476446264088097179349760012421150237958882052~
2842073786612372763255899601367870327466625191994180696970961857561949~
6854583774970605131516547054179027558855004166887252946167691662658 40~
9056612250096824850213622672425938445547540377860713466710019727688 85~
0878465657353260898295399482653888788314430969733674674797917921200373~
5565772591591038571643024678027844914805938330176352509132881686094200~
3774432406491704342538923470415791491460409557598238690757438128628673~
0146458587028532675228561736258300300381488732783697690934602589379117~
5321381681505055854834690873136660804896657044353026936846114931540040~
6496354469747365147283697479632542170095136673376377962005463865741515~
3461419075544207462395272388156929882140021736609168942229528357116592~
3579746125526586341443059853942577907995089933249505793225186925662488~
2549629885797674752452910966222377999220837601606537132183476500577354~
9418402975186229026009813460889149538193242569462552079934293724642645~
1794173743014611392410178166184840222367695904679356810144387412477161~
7373143174152464816463745116831284501211270176042294 50E-300

$velocity_{noSRDback}$ =(1.00000~22950E-300)/(1+ (1.00000~22950E-300)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.00000~00000E-300

$velocity_{noSRDback}$ =1.000~000E-300

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-300 - 1.000~000E-300

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.4 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-200

$velocity_{SRD} = 1.000{\sim}000E\text{-}200/(1 - (1.000{\sim}000E\text{-}200)^2/299{,}792{,}458^2)^{1/2}$

$velocity_{SRD} =$ 1.0000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
00000000055632502802680921608704498242400499580376621723748118723311174~
3977345550067393367868687125088632449129332357521177227148737434556981~
6060520881555413866980380752040843238379474128033650615074606794884223~
5181708653856666246097281765293976018996642357554571785935907281611366~
2551875697996557824147326955248130476446264088097179349760012421150237~
9588820522842073786612372763255899601367870327466625191994180696970961~
8575624139317635910421501850798066591029759815282239724960792871583253~
1256331292290490307107543088834901513174509530684728184115615646639035~
1424072338980554519029020652863633010024621754074081299173968369773488~
3086235640690137433293462411191880606042702666490434989165950393260499~
5278904268793825770177230718046208369429559393507245219393301917893166~
4642823303647151226481473559316190303167288369724267154975057408076144~
6472235598028428988742715210204045157114486121257756510255926949513978~
7087093994614649118583842756971963963344508438990530521535057342820698~
7717471667019200139676060904030121285031775636732544737747607525074373~
3851534016782194021777566295226109982930031153512862901886679766168060~
9064968485161403363328726055217775099983815066342383857227887564006671~
3472230452385892763017913607817501815110102290879714693559666575686387~
4685730453609677695587645972795614077712395416459931718417686687424323~
9115513469118176530116092042598901003867398861584974086440961372894532~
9239545152440968737144047297903005777336610529404213283070095572585221~
5392863760247279816541976140473007695782864756785696778747466091754886~
8606896895249521190839262705556928237089382920336870E-200

$velocity_{noSRDback} = (1.00000{\sim}36870E\text{-}200)/(1 + (1.00000{\sim}36870E\text{-}200)^2/299{,}792{,}458^2)^{1/2}$

$velocity_{noSRDback} = 1.00000{\sim}00000E\text{-}200$

$velocity_{noSRDback} = 1.000{\sim}000E\text{-}200$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback} = 1.000{\sim}000E\text{-}200 - 1.000{\sim}000E\text{-}200$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback} = 1.0000{\sim}0000E\text{-}2200$

7.0.5 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-100

$velocity_{SRD}$ =1.000~000E-100/(1- (1.000~000E-100)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.00000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000~
00000000000000000005563250280268092160870449824240049958037662172374811~
87233117439773455500673933678686871250886324491293323575211772271487 37~
43455698160605208815554138669803807520408432383794741280336506150746 06~
79488422351817086538566671034358697883906569092479431123964049187558 1~
21243857301288421819559251124707147609492023003083919766903709183730 09~
83578319238887885560117121354225816494234755768246936802036984885701 45~
72991499122705997097050591009339813802747688530008962547683691832096 91~
51839988749424589566482882640163475485789635100554237268850283909881 97~
20999682007160531546136212804422172164325323223650423730893830595320 86~
92306070166220044904316478403918434552454224863680359821259052795402 6~
02599527240817607501134185948753758455036158756177025113435654725222 14~
90170127068160838064449013647260809575519805770235341018879558652928 35~
05210952247295521370884776722984147638325194991054578340413925627269 95~
85715788243599492809491819429233310701836581419986992195917350018279 19~
25913476124020399453042509187336449848601477077765995475590578071759 6~
65462487781626697612959781006878320621284124344005948492065807018560 75~
38117574942358603729514730362118203290896654486261695391116584584402 11~
78973823978898138054144950383279724486350064079054187122309784510237 41~
64464567592374248637252973827953644639476390492257321883421140327737 68~
84969724591527290460204275167845891233178069111290151005378674227580 98~
44475794627719925411867966351140613488123425415794213391208866098820 86~
71779364609281012571088933713861416418343558757425643401047416574349 21~
21576227552092671174668091461497949829329015354806837509422605617415 36~
26851630194982102688336958926989679907517328791128181278419074380749 9~
70660098410532323362552766560710401832038465229231160699536173001415 38~
15050982661710709754121098422855447031284576841409 0E-100

$velocity_{noSRDback}$ =(1.00000~14090E-100)/(1+ (1.00000~14090E-100)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.00000~00000E-100

$velocity_{noSRDback}$ =1.000~000E-100

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-100 - 1.000~000E-100

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.6 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-90

$\text{velocity}_{SRD} = 1.000{\sim}000E\text{-}90/(1 - (1.000{\sim}000E\text{-}90)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$\text{velocity}_{SRD}=$1.000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000005~
5632502802680921608704498242400499580376621723748118723311743977345550~
0673933678686871250886324491293323575211772271487374345569816060520881~
5554138669803807520408432383794741280336506150746067948888659812230008~
3656334389124771338008466129640354402752475556007468752842494890656268~
1037402103601158145672873377460055513926223494403441175337260609709139~
5996713322947080369632292589643736218695621848416156616022377417406688~
4676066600176795280848573982773130441602820598171115607189344785478897~
2739312773412142361347811257526778724127664002778593293201238888213946~
2607342255503933016757994843893528025084836309909794675684738834072432~
1930346861331151139007174076390733281481571563576452951183706890224399~
8741800754315109267129628800088525724066148527124805012119268009663144~
2375480730191867421838747666709725803839143597166361730039739441965 27~
6923572035204245867352420328888292746216071775318640931961644606976604~
1340090723318452276366833632646765551645336303351707420077315912223565~
4673373599300943470436645258029834575623191473614152094219375478744664~
4939776374093525968242409217656750835107560496302610780045135491045642~
1414220041323581618370868543421790900464590315026022407096247568757533~
6480468390750588103661056658960608384176100442695180971505003850001031~
6719683088539951271688121937188239443793395533184090911837660226409822~
9891235956391850025956191658406940422775936092664154477661586884891251~
1096622888892798939124299450567372027272009280734447308645776184017602~
3347595143775709446861379242312385795041166142178389967436123885858300~
0977830845741132830307868394362455046492648639333729954976935390002684~
5514947469659450976511838671759252489511785332407693510487931375385800~
5981246527936112502021564673795211447879023614536297416795167105078869~
8189880279263043344462703497145592082050056589707170E-90

$\text{velocity}_{noSRDback} = (1.00000{\sim}07170E\text{-}90)/(1 + (1.00000{\sim}07170E\text{-}90^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$\text{velocity}_{noSRDback} = 1.0000000000E\text{-}90$

Difference velocity_{noSRD}-vs.-$\text{velocity}_{noSRDback}$= 1.000~000E-90 - 1.000~000E-90

Difference velocity_{noSRD}-vs.-$\text{velocity}_{noSRDback}$=0.000~000E0

7.0.7 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-80

$velocity_{SRD} = 1.000\text{~}000E\text{-}80/(1 - (1.000\text{~}000E\text{-}80)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=1.00000000000000000000000000000000000000000000000000000000000~
00000000000000000000000000000000000000000000000000000000000000000000~
00000000000000000000000000000000000000000000055632502802680921608 70~
44982424004995803766217237481187233117439773455500673933678686871 25088~
63244912933235752117722714873743455698160605208815554138669803807 52040~
84323837947412849789692028815188455615167012455045437256428365900 37361~
55298548060172484289517374160835343522838307616299122439541214732 84792~
43044447943372644598955864617999712569478223478935754699993273009 83712~
10304842715763359707833437437826089181394621587831740694138981273 79255~
88191766938259684799304604650119098533910785497631972505886115385 64925~
12376970306109406406932453022511027965983139447608266798871880132 57140~
57890967742716518592184183208941626177750802836642289947470671247 07233~
20366646146041382300554013384636974792843166408354590369268858126 43092~
66730646069198196181895026654194336855335426507140108450532547008 75800~
46918550649827638412617777824686813150280295565739950553090461261 25978~
96514616157652388368800686293629625983256981132427730985769452669 60105~
91854940263356319453109838651143651530591770531907880159296974742 21631~
91235290007747780433503118256747359259052162808454388609670898446 89451~
37718403475974986395999290717904708514697252229941673356263841091 6017~
97347672063645079687722628513715200794015479353159391851004670462 31407~
43624850773847745714341374369837062715758303673283518529296506293 12971~
28824754141908129189290030005832996730342228469693907716663859133 77131~
80589581843571968610745429676628289472736424310572885017870180076 72299~
92127571045783009298386501536930363043642098761117196984498509617 85009~
00104508200757549919455021235119112335926561072457292088190115137 32130~
70221627814884884407155655250755267161131835688344793693574014623 62864~
89580810925461161618792531158844098563062478814475803509739659122 2441~
66392376290716272650905310371202745383271362513541425735919981739 91757~
05717717863907538016624869942770082073297201603822 0E-80

$velocity_{noSRDback} = (1.00000\text{~}38220E\text{-}80)/(1+ ((1.00000\text{~}38220E\text{-}80)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{noSRDback} = 1.000\text{~}000E\text{-}80$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-80 - 1.000~000E-80

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

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7.0.8 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-70

$velocity_{SRD} = 1.000\text{~}000E\text{-}70/(1 - (1.000\text{~}000E\text{-}70)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=1.0000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000000000000~
00000000000000000000000000000556325028026809216087044982424004995803 76~
62172374811872331174397734555006739336786868712508863244912933235752 11~
77227148737434556981606052088155541386698038079846547375973398309522 64~
65810443113665478190911253586061436289449321849412631479956674953994 07~
84574795226438472665996650865242655462746429079012915136506302211609 59~
26283813882259274680899007259710966357535544029631739293901711517078 09~
37550807305062378002816015173040208165293882101074078694271868718123 00~
00886531181156650167457377693309165553390152635990793022982807790202 49~
04419936803367204580540651455304658882391347618780425351985656558926 00~599
50893867181871249949596913205254965770036537602006120836552718500 35~
53691318925172222735576063711359634292020664189342994645330826588367 47~
68959130920527511155399586247264714043826901224392453381285375050499 47~
95172498210494776561044741063449710793488631778073833761857541121397 33~
08457735674693691558013912779838005771005752916280708728852405857016 28~
85399194313064565640459289152615860416827275569850735092696959388775 26~
15183307191118194559972542433855936431505243739417290704060443626570 57~
59025347825559884940811225709123059998744043988323981864640085653533 72~
95541798704428433716200092420301319391325301315265509199803955786207 41~
54148931396953264239646000886970685474333869398798898989258891963789 31~
18882507335885854771525770666465728082154165527908358145038746863295 75~
96710545428601663471956473605430870258064479299729061425544291939926 89~
47472524652725098099670502141681703391463654654343112743751974280800 2~
25797604057717311481206307356315933051744973611045263338958988221565 16~
31288731500612813437741134517154862365418572676609382570069049304197 78~
08532928829880196215831841898263344885643067602919341588140763740549 94~
94012135809623606123603491928285477785920918746106136626113474158908 4~
572720435221196696803113399363729462268175149946 1150E-70

$velocity_{noSRDback} = (1.00000\text{~}61150E\text{-}70)/(1 + ((1.00000\text{~}61150E\text{-}70)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{noSRDback} = 1.000\text{~}000E\text{-}70$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-70 - 1.000~000E-70

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=0.000~000E0

7.0.9 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-60

$velocity_{SRD} = 1.000\sim000E\text{-}60/(1 - (1.000\sim000E\text{-}60)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=1.000000000000000000000000000000000000000000000000000000000~
000000000000000000000000000000000000000000000000000000000000000~
0000000055632502802680921608704498242400499580376621723748118723311743~
9773455500673933678686871250886324491293323575211772271487374345569816~
0605255240184660024312774713223627752301611874303899233466743718507074~
7753815370905443031080000039152549049285580436845459322654515815793994~
2525637167446344874481713782807323118618951456242876992007712761477548~
7800861200263417541485626012039677901399208796996582690994911489025039~
8358490258166720262414155766738905183779344795229074526875360408429965~
8348654092938280550872863585481230167409456000922658833559522808554037~
532086424265679371921363288993276821670857048058165618403243041180019~
4073758678832259691643793075056811926252548992369080838783051338153742~
4959781989266058611495489395186623249014254060112827492063436614291560~
0051043937778656981720059110396600396520059355585424504939978492340061~
5431352823678304362001593964735465345411898777303939563077980409343537~
7592591096070421831630664552980876818729978206913561830743531887434563~
8069287956166473089701581569737250394061019082560137892859305168684817~
8032139283881551668966838634861251187545054976822456680241114947975190~
5362958499289000466437710007696301210768305605204562538183575827994624~
2227100777709260062699142659366700299315615966047813740586874637498583~
7932612653185559801810381292168807232247753471349810496889990667787832~
9381278591110363011309158935021585182536453506636002246520964879525911~
5003419226964774910536003202607906774544882866703067196016006628712279~
7454268170598011871649139032288897839875415955825704385433906696256994~
1976555867637490979786708082263127575411410957744550545994353090093564~
3353634332539380747928282171055546915634721120589148981007324408933664~
9556888335073882468504898142159708772467110436663179548933063419162070~
1639208742630374190070081304727371257883116744486044828896486796809827~
329542619216202068296830957720409688151410368520240E-60

$velocity_{noSRDback} = (1.00000\sim20240E\text{-}60)/(1 + ((1.00000\sim20240E\text{-}60)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{noSRDback} = 1.000\sim000E\text{-}60$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback} = 1.000\sim000E\text{-}60 - 1.000\sim000E\text{-}60$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback} = 0.000\sim000E0$

7.0.10 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-50

$velocity_{SRD}$ =1.000~000E-50/(1 - (1.000~000E-50)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.00000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000000000000000000000055632502802~
6809216087044982424004995803766217237481187233117439773455500673933678~
6868712508863244912933235752117722719516206507833611501928097073675520~
4908669171477406558623182468204655180343913366479362535325159845548392~
8885037829139495648171834215951383443925267080802791087688294001105658~
7222370425384993281318452205148296792250109613737293479196074402861667~
1469652500012709456303929330818622132615960915890860287322076306873292~
7686139216261989494267969251543146695788558061258623056453756849591 44~
9334113212440440169758351582210290328832633397505905424592746297940707~
1979906305051537145013909062876877325755396922282004237346063289918466~
2961385305699409338747220179374102924788038542807183196220438118511045~
8734209262760103818671439927862435244988254882746111882387009905432376~
8808157804248977925586027129058775215815053351352518085904144721787384~
0949126470224909549421963267510199528727256328758672805058663147829118~
9484664829835439094064317903786731110451859564151092967111850365769573~
0996640258696302285760792750761085476607364563427805944035279278304166~
5151011597390441425343634715447988587695416280539096331067982902425451~
3540699038159874731822235908207891072386767290674131522257633944092821~
9506733292334061355530681659520763235167875740372329365479986950013966~
8190280455329546725969826121950896055353900424651974015469571756237589~
7363948922636758109370997814191977597822136531157773321313617482491130~
2433944238622654297670080595568353644915844441998905843428096604985802~
3972591657895303557050752625340340239949243528968967572774766811332082~
2252640156778858227595314465731816255192823118300474983802762199533309~
0744429104072301897210567849945190156938079300754195917665190508412268~
9109683567949863859839898284134497447872898627642428264153451289068051~
1891359867043289046874965225170140867881500021400349618396010052081745~
9291949336590766118895153165173440531667529401754610E-50
8728986276424282641534512890 68051

$velocity_{noSRDback}$ =(1.00000~54610E-50)/(1+ ((1.00000~54610E-50)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.000~000E-50

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-50 - 1.000~000E-50

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=0.000~000E0

7.0.11 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-40

$velocity_{SRD}$ =1.000~000E-40/(1 - (1.000~000E-40)^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$ =1.0000000000000000000000000000000000000000000000000000000000~
0000000000000000000000000000000000000000005563250280268092160870449824240~
0499580376621723748118723311743977345550067393367868687125088632453771~
7954096566281238680189540938229311148489484965876561504168804369 11262~
7080060906613333132280780746860798447969848976226183964526074653320159~
3246464208991458635162016510745390892624685558526049600992589382309066~
5710944193327766183032289693013053749051510779994948433301623987199061~
9700219228580042739133610730851309885839210654033806138814821023611183~
5832191631349483505473757102865228251817119247872224086882109098211214~
8240139055766297505457500769563037292702662801122870704201967340001260~
2319415781100056904418751484881247489350197041373829348875799618112749~
9850969329441960797166376234219725656947318346294533775486724726455106~
7955293907403134371389443579126951255026715365702250726456814852347820~
8300925253697488528212018487245216622462503750426289031777447831119386~
2529259013906254983827770273447457063041806298822609262578400046482066~
9304035358873906394332871059458524289022312339438917890424997424488174~
3843620173740302136674460091017255868874681169546832982642194381627696~
3722609359933000125984850818410287405027768678288701522927722059171811~
7050147014244609549096624721053416209811648686237776114660197406685024~
3761681523681689525447446658516675516529340941001783892237436192425150~
6594464638798035103848534862015210458070288029709026192187523744028281~
4758711597466389431498523742533251425808811523595799422132891706928046~
5140613736300471705139152800106523119170953750222119339088303580588463~
3646050472092773150921088652276531617789582601114082610295865867690638~
8908352546164692632719337076880376830277502509926246264603624911622187~
8689189762468673866744972060685578983527460429435174645844152501634002~
0223236735897539569034269596545740239043847576420270366638593723107960~
2225054322660451798963747315525811256281540969709492376413722966018594~
6362395665148584583934695998771436692036346151943100E-40

$velocity_{noSRDback}$ =(1.00000~43100E-40)/(1+ ((1.00000~43100E-40)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ = 1.000~000E-40

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-40 - 1.000~000E-40

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.12 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-30

$velocity_{SRD}$ =1.000~000E-30/(1 - (1.000~000E-30)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.0000000000000000000000000000000000000000000000000000000~
0000000000000000005563250280268092160870449824240049958037662172374 81~
1872331174397734555006739383211499233863372212105748431120624593308841~
1365384188363748736551478115530381160304837494025785286331148586676805~
3190434852528367673354230632531435577841252110515126406698775218157 66~
0918367657108026811687958230870245319227933080503640820061889522093346~
0268990580907579129306019507604125036510129057750732442267986685628616~
4330919667663019228267086572795126588248142596241458348112433677495137~
6893948388555339333074969043495669235565568832959211625296830966716753~
3991372106601191241975174992448642518741756941023211706659451431066716~
8163663855112098250292824942851248174458104684614899432547784287168530~
8833507169436319334575309417231461682757134123236164359042152740534121~
8882759953823317612171760824754075330192668718354109194073843240958520~
3990831446763306817331308090636008045113014436786424423832880454500101~
4159886765179876279673099720139449187818324449982913930327421936584719~
2694915709007911089334093039749390641846098755899070341921326059996749~
6762586968243950805023234257589299479573811799652665741506154722332436~
6857730257530367796309264661112926729791833237186213288833268167821969~
1899454309921401261986541128571556875961382201290094169118269973720453~
0686199260032431332537831231616346807437164490015162563325847728667068~
6941431893724989006381587861318171811666195931253309120480485174159187~
7282061574502204770024201613756358833499648205178696537169483345231931~
7296196628190980653196329365314598690796108212873629884257250870644783~
1743421888571304295306226951546571507814059419549565633032282419743643~
8384419701831677884815021606708655719867329843555100934605325682536195~
1785060029267911815343652584411303931481983797625260507117551845725565~
9950176584759831711446115631245957205849756845994973219408890204633239~
1583271617818347128733341474496099618286731888119322004221133473615063~
3912994532214836491956742853679155431275795736274320E-30

$velocity_{noSRDback}$ =(1.00000~74320E-30)/(1+ ((1.00000~74320E-30)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.000~000E-30

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-30 - 1.000~000E-30

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=0.000~000E0

7.0.13 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-20

$velocity_{SRD}$ =1.000~000E-20/(1 - (1.000~000E-20)^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=1.000000000000000000000000000000000000000000000000000055~
6325028026809216087044982424004995803766217237481187233581686078669045~
7636056068388249359550304309672544024185303985888348810788109077682980~
9942705768297878810580209972615066873264797888913467252483086662942427~
2528718263310243143679823604048024425921679671948243762698793539190501~
7853649084331490561274559574873065521587995855535054296825898660552458~
0403518764484318745668042179287321042108392153419834728818699517053606~
4258977283729266954282900544722390544056858227474506021155386013 0092~
4287477286194506499006332940316337561122428170683832963034349180764780~
6437857451324816679402925061601728588877827916774322063893408423713924~
5025833072694092220725795422494699664832431856618606103521595919407716~
8498199087364955249158616933062902591120211071820555295437804480961461~
8897362503777231330540441531077622814176293743099037097330083853254419~
1636633044278126341677955224287965433329826533348923326622369685792440~
7370575681177892397385157389836092993510045887943986401646466630983291~
9048339781104209497982510479066434406620243422500541089377943483936 59~
1621523246763399057471956036412683455203677573983527733818377906416646~
9999535084341071173029134317690311722324359793780131200392583205789415~
8909747906025779749207610219306864713170051497176812629315416150407834~
5550973453870281273380005992691086058784348369049996309317541627589289~
3067982200736569137919072815905417955849992318421937286454422482065007~
2835597732921067189585673808835212564520200592779366103984148878618651~
3504721128209714506787207515335484008500308757587635719909134800171532~
7710394349545289489266753387632939666352088136838542207459415845297606~
7419216737118787921889378086429122356413717558226883872039643801919716~
7841140434305080655850934914045570581974519473773372473797594993644311~
0967651567546131484773544598946168145533039782863480003567494563490195~
4419002865125602096509540503709827025525889555464442033324859054151 57~
9410651800069906082149225614567513009974251347048 40E-20

$velocity_{noSRDback}$ =(1.00000~04840E-20)/(1+ ((1.00000~04840E-20)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ = 1.000~000E-20

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-20 - 1.000~000E-20

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.14 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-10

$velocity_{SRD} = 1.000~000E-10/(1 - (1.000~000E-10)^2/299,792,458^2)^{1/2}$

$velocity_{SRD}$=1.00000000000000000000000000000000000000556325028026809216087~
04498242400499585019084775883569620031025496882400754883217672594177 31~
87178824597285556140323316984990582819723171321906600414670962917755 71~
88902384903563433165871412939182932129714027271782674675863256072410 72~
96973249284335625660778087745773997108115312707548774413246491686660 55~
39266013313234378045416780394833714911708638790059220750053586189700 42~
11705280744708235681115897698702080629016106618455097785396516254110 92~
22049716054029106174952406364780705624522272294961530933996583771264 83~
05954897721384991468857028975237567287678824055283133705173249937975 87~
24779862740949065254736519287624668053926704540782733283011181600323 60~
46036694554508674753835794611959755163799054267907153490701697392001 57~
49825864987021559448081191715004920122439651588337917266260813334645 26~
95667722762138501881936463737881117481259053639177586021149405563726 11~
47103047883369232528951578146802069502928546511782101392602251656027 80~
67649985307164123708909631372398657896449795254942977213863157598522 99~
08329734249636574670528150696182272714620208703935516503681914936897 60~
72204307707974840200834100658633178197272394055153024453060279566805 38~
21308782822532107737439636830710432048384841320247377910122741400536 82~
58344190012085820158218866308837269278414105299488455092088421457619 43~
94765126656746886523722277989031858568032586707608531175183493585649 89~
17245122668304355023837750224272055881634020517838000018725912266718 18~
61052763633737504518295373738861128709817177219627363250241916972767 10~
68972745646612970682863756650626912101043736009258456770650286898319 15~
42664681359412746697740009121884278830072658400293822613170001989677 2~
96155588192943875128936500326977016907333182381294030027088691542827 87~
34507325404571012345890729880915131480701207544878726028184198147844~
72368279946451030385974891117325723300946055407546862957869001343386 96~
59046263062199395322001906143666893021791485638758925775403892020379 12~
94599744527215265912412976870382568694725836901350 70E-10

$velocity_{noSRDback} = (1.00000~35070E-10)/(1 + ((1.00000~35070E-10)^2/299,792,458^2)^{1/2}$

$velocity_{noSRDback} = 1.000~000E-10$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=1.000~000E-10 - 1.000~000E-10

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=-1.000~000E-2010

7.0.15 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1.000~000E-1

$velocity_{SRD} = 1.000{\sim}000E\text{-}1/(1 - (1.000{\sim}000E\text{-}1)^2/299{,}792{,}458^2)^{1/2}$

$velocity_{SRD}$=1.0000000000000000000556325028026809216133469612945359504775~
2635630788374957292151513040540284054640728031216489720346404403854643~
6613298648467134170643800071677702108923571578038913312811529545725434~
5764958523270340041641351963664969350365550835759827224278193288424231~
7611171614780247574387817500921233142461321826600100204752073425863686~
2899307585627389756752344299604425178536856413558714477785809675089923~
8779148152818216297592638375281504588403381713365385355412004310853258~
2205144879899822208665660257987478668631333184314252540732475935288262~
3333854276398403804845175129075756107237192306741331755279183267513261~
0533257782131112065948032915062020497063610363351930235904169514419201~
6067539552561908235127156268095133043900102776680202498072424339164063~
5733094293231726622981213109600227675092388671383872039982874337666505~
5169409972776099844075791152700534330204429395137369282467481333952339~
4373624014600796740942568367882806693378475133319483938856644953366556~
2021194051592233874615207625659116503385271701267228910871303866615651~
7957085823236958317571212812602387151507173016700390294023179317865145~
4896636167159172809461917592900034229681120768830614869048408334147984~
2515931397354363007515700634371043895211534610709701022946506981867729~
4472125161441153985286293667943451708673526862593532587582077634219585~
0669524006173169721081783682480954286205793038541194476738963669231134~
4115343011374921614847192462133845002491535090250355136158110805256209~
0720132711909798059268269510423007617584579547704268677662689612828995~
0548481075322492068107153441690224417716953348872194116633199364094845~
9063433625108904186648392915915078136283472567422552347591659345783697~
8569931551119438576363688422649748031484384694522646760597514780933367~
7460609635718448401695594093894200494305234077462880614313804274262712~
7414340733055823891982322910037664740774025191102640113126494781450909~
8673712523819546235554336466993767300538102275839924623559057201949440~
9523395173808340251174336827565024708925969945141880E-1

$velocity_{noSRDback} = (1.00000{\sim}41880E\text{-}1)/(1 + ((1.0000{\sim}41880E\text{-}10)^2/299{,}792{,}458^2)^{1/2}$

$velocity_{noSRDback} = 1.000{\sim}000E\text{-}1$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-1 - 1.000~000E-1

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.16 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1||1.000~000E+0

$velocity_{SRD}$ =1.000~000E+0/(1 - (1.000~000E+0)^2/299,792,458^2)^{½}

$velocity_{SRD}$= 1.000000000000000055632502802680922072950803455945593556835~
4196652348544214871970263823034464856590741005598421403426033029011462~
8279980063147765248629771054789665736830746669932392041589018154441325~
7114789272669713137842342012168114564794066536518870306711386056157725~
9424655293321453600166138215929640565658992234138822922773266904565293~
6928320295180938685724490598021262332495142767794634279810294404575313~
7914112836297483152831971654440649475574148958827762174205569294826317~
4199325008064784744584922860067013375762628880014614695842668209323928~
4077281969062898962135635381613602251640864769966165704454231991594231~
0988844507297044187410165220596436475163355898830997625718654877984088~
0865542457157250365864555410421610380490131616489769119472047912396170~
1788402232399432392510666009568182652687922383262458655745205667933435~
4038142876695612840641357856260727018340593714270609743040761083113606~
8419536234404679660006582412794191537817440888197070860384800417401443~
7771793838573027115883616850399632838690537041677229633428572991602310~
3756090987693151088815273217993658459860824890712369170748422570411780~
9925759071048801932786409933800535056561953627934344383990292115970303~
1420351370314978050336587632518618126420540993946781875747519579056991~
5296251872957402385367260424731723001188154057416176812898045645549231~
4565956730429771234655456189553525105870683178334553608860731638340533~
3325134972946594919476541293789986317961843771335218894537501956272896~
8553414480887608802396208492847525958373445605575301612185147229365080~
0898125678009444619695902556339587217839980119074866499170813776358707~
6389085451300320713496542068399439659398121635202591457320273700289897~
0840651702726053085144476808474582242750410924126714412463112702323846~
955756510090466272386169004812356333416505508759956535016332916975970~
5505017392855692875311757678319696978553447558407193558464751056029999~
7948001300700132147110517070157508058291466267479027155546168917459425~
8401178765377179756889811938626820164063938513300010E0

$velocity_{noSRDback}$ =   (1.00000~00010E+0)/(1+ ((1.00000~E+00010)^2/299,792,458^2)^{½}

$velocity_{noSRDback}$ = 1.000~000E+0

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E+0 - 1.000~000E+0

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E+0

7.0.17 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 10||1.000~000E+01

$velocity_{SRD} = 1.000\sim000E+01/(1 - (1.000\sim000E+01)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=1.0000000000000005563250280268096803333501959695251207965169~
5150413403316672763188193806178220264498615174700964778475210428261408~
2209383913402168400838157171538783511543631658462963712370244875057785~
3572784442000001033118199098643218690004701473925666454373221273555841~
3503521695818792639766370155108207594836454708133290524581951203149712~
3972199137216403927885809376525284437961352524991861247865967793854221~
0796392782597106995763480010565144611182968798898048864379061659586685~
9575513255253451763805324664404016581087980464376696993277061675156621~
3925379214961913064591735562519848593570299887407193691680067024403735~
0737413756151819794611339847705474001542778979049107151484085694768 64~
6086001625550802692315611942984288765178012321699916629852616269609413~
2464002440215108033487304320981663983215942194185429092384561621262115~
8151212897227123946552876258854635136817364345804477689738875562896430~
4163380039910202090812557892977394364575912515886943228311569358494859~
5972962030373067057276884052481827610579028070144810479638070506860827~
9965497543410639850021975368221292555909992126823319550765925568030477~
0490907050667466762208469004424239999514806433195262831029254658817411~
0702765617742754611682338106614146754313052313207060980308579360161266~
1046862298110153927472553862518559479819441283342503824878221297272434~
7814023662978609897722098561350472312865237086772492615515679272465273~
4120651859260823819328878630174840404496227769501804847569468975173634~
6874163600364451669202794681151179183908369290711403407548291315391981~
5307985900583820431816989939134232835571761632032035463587998559292650~
0504768509271056924091893636095863484884500250689725564176461241734649~
8279717919344815344500484878814400862271601482136781457927562488350655~
3109288318301347619715171558037876299856953494835214063577893108442687~
4239359802240713876417901101075057931703435777489117204546611191651250~
1237516843962448995452308249258099209348754322472496839677279292839981~
4311948773018341964673990995594034004944367419390180E1

$velocity_{noSRDback} = (1.00000\sim90180E+01)/(1+ ((1.00000\sim90180E+01)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{noSRDback} = 1.000\sim000E+01$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E+01 - 1.000~000E+01

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.18 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1,000||1.000~000E+03

$velocity_{SRD} = 1.000\text{~}000E+03/(1 - (1.000\text{~}000E+03)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{SRD}$= 1.00000000000556325028031451679139223478627184574415227066630~
47562287320282959041250913922859119911645219518739255515842377957796651~
729070836143314941158280252515077071101540645051443769291097647278085~
06290429568910672083417768312819147662535238362062998163284773746729955~
570745202244895098964953090369361676394379399461896446485609686604755055~
989154780950073090595679533004247641246907486365998543010836005412622955~
553347347129875684395592440359324592900390662852442912393028146105966~
186079797523463989367503268147638116419618626984806090642815242585596~
862780133207085057766908078421663362660954202249744989396579441086109445~
676014226984425411182635030874485024810604507614435678983902590721930855~
059449416893038184850711855388946254176275885906694399495417071456413855~
956127100641020249486153255641691557528964879328066447350445754210082755~
552283588855392411419213736168253287795307341899397261443531201170974555~
729629589268480024799964078798088550743042322132712403027084426344667555~
882007329723882282675484057630431893938166359389976436320177575596725255~
680117430396801923982107595282805138529661072216027257890972978752584355~
879931524126472319030741336793900907660238523038685138455521611827101655~
578208255375066114824228907269973815198224201066010033298899850738055455~
351499495725202864471683759521328203798989410025376068136158887122193555~
316684333004134254797496152586150238401460501133870374394335294636124955~
585098349657694325933599260584270732095826145325942219132874663265168455~
821052577837409898965294016361718929174143819607258724295221262491361255~
186647048005049697315726398300673755593385408067769512120480898729306155~
88442167946938579540426557576393862466271788518044253760025845310738055~
59030594996208965493294645825979465371766863471239319621124017727077155~
354541442719350758616450107585331869383399894776325254242897558425946155~
321202674841170338585066943589331426584523152431720893831099536264180155~
985855092213473938171321697930202985429888119520001914687963003576380355~
604332472893833858760679275229912881352987156810534.0E+03

$velocity_{noSRDback} = 1.00000\text{~}05340E+03/((1+ ((1.00000\text{~}05340E+03)^2/299{,}792{,}458^2)^{\frac{1}{2}}$

$velocity_{noSRDback} = 1.000\text{~}000E+03$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E+03 - 1.000~000E+03

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.19 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 1,000,000||1.000~000E+06

$velocity_{SRD} = 1.000~000E+06/(1 - (1.000~000E+06)^2/299,792,458^2)^{1/2}$

$velocity_{SRD}$=1.0000055632967053290707707768946939874194553957974986451403~
8892554082362761939975276562956194325434489432412211291665037884197205~
4885230389276779094310493265021805894950770638151300694043413392794143~
7274019028069279790129659297047797678070948746911523250072258258989199~
5064427067695658519901186171065179798336764062349649296163003449749099~
2553801123022332434974923938741361865038461095154738210426975912305076~
9641889567299133073858918623851302267873697299621582799540359954158611~
0745994912011388941159943591544527223224370229408448454862750780730005~
9484669201905333575097278476299969205689595534093634337139189851629339~
8068339752102393876517903352654561306476996730353412541822259276018153~
7623303359660912211543801514671849119038850274441110086643691089032078~
1902044021999720539246285690517419002612038052084175309509369794543626~
4606795296977765703777381948700619749974275220499680824283229575412668~
3741777275225383140700815740098109240683991447923024987357108397970365~
0203585775327684884467942598208299897444893330841362306947497619808466~
9447339365054904643470871473720417420680337106802155780002673202247308~
6453225801522173162489064943940797264316357062868252526838026598185669~
4474221900256077116972670215559464201691394706811926863710073901348882~
2582626927400989440448448073449819328437619871438225452287995879137154~
6828062718253354791960455524694066951783398070268161864724162026032128~
0589446353779580131483403876748091883741600765455579039882519385906333~
2312896661247677532376523217999483329364917190510078765952784407109254~
0683337251145302347162723689792212319182563116280401287970306950043868~
1172288142808564965553179118759216439309546728364684131268392451475862~
5072432543115472738505105345411653142883904492910733640991487460030246~
3493493994835799283617908093763280249345863588664091356495007473779145~
3640933283493348348498383763348641529403864095866149129766743260832146~
1061345936973592978927305975606755108714116331416830549076265756739601~
9577491319616537798393578078122966304618574057724410E+06

$velocity_{noSRDback} = 1.00000~24410E+06/((1 + ((1.00000~24410E+06)^2/299,792,458^2)^{1/2}$

$velocity_{noSRDback} = 1.000~000E+06$

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E+06 - 1.000~000E+06

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= -1.000~000E-1994

7.0.20 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 100,000,000||1.000~000E+08

$velocity_{SRD}$ =1.000~000E+08/(1 - (1.000~000E+08)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.0607520004420400242450730650056697170087263780301215365 38~
4231489091318525815522545287129016791778897488302793244282465266750747~
0509953374693561972096186895260607084152813874926175930521650133986480~
9242899684545579639549919968962877961822297386310789557593999502601134~
0853249513644065676967843115028669676759615949449748162703309819373065~
6632763704131940687948014272224985481903297154138343705800908033226486~
8762244844060747669146573853341360670019466277047131738379526260672881~
6881899409753269865550723583249530674453592517432677587251651749161873~
5733156876248652961989254153714846408174627923651699456212647649322690~
9876132133634994014050518677696645306446743196732849743551830161083418~
0536155902505397214988640925156957863289497458883110194766709342451964~
3242169031372935002611302477054281688675987493174177421998644272143313~
7556781455442703119847082901044465046874043793858590376099159735973564~
3629003706388103345702967461113854089944037622404418987559213910349212~
3191189601895824888747767150673475795128308215861621835622473866543 58~
4103194055892652980558868654140453098359344142196104615009466496627216~
4416795351285271176643891954229706196682616271865096610485975656220664~
1402394284341623424494273345990441221712521639460433723943633454625715~
0435688247137077851910804557020409333991240345248797485682619383538805~
0356908154584545489506834424918754146763495963545445935155267150978159~
0624061235247386109950212120986398352925174499052830570851258096439 28~
1949473385969424887163744485020288720843184468847505895494447379971585~
8733730228618261916659695768335401596410668433867561003042190080181679~
7618037200320662903037320996933126470198295859117447568845602616109703~
6118536795418679061439191826784292358385897489826252699368362908872702~
6928372191217219405290522566900532969092136363247127972890233191890181~
1818462537433436217889754576624976180535063953383057671880304744162 88~
5354159823533073212904798682312645571924629740837337081816859015044905~
0775463673957565184273556116310429583641301564663100E+08

$velocity_{noSRDback}$ =1.06075~63100E+08/((1+ ((1.06075~63100E+08)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 1.000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E+08 - 1.000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$ = 0.000~000E0

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7.0.21 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 200,000,000‖2.000~000E+08

$velocity_{SRD}$ = (2.000~000E+08))/(1 - (2.000~000E+08)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=2.68476940168284230230641309115422971642954181738437323386 07~
8632623796765316769110079549575832415125350045777770444120105563817344~
7874117200412067827270187238322153754789100998180703853801479261675563~
1623193559934121976483006408145539531774045295266813068273363025824535~
5259784701661539596854810392935293424469677354599675571308631428364585~
9333005955643678367058745925233384361422731554859697419196166446123818~
4251272639089397620251167370982293530226888769661105422733088983705903~
5960306182204005781399905617785828135210525357116163114801432671818872~
1035147932103047715848092858403674184641354629420708718567920514518294~
5765481450461849554193206057822549279820117504772578882498596607587379~
7025404231003577585381331977947591570903171548973593768391589404116513~
7058614955053075146805884918578873651394213746459145055354710073815194~
5142064093348447799940163565604117637530646528634606724480258738849105~
7622451279480909210180444242440217242383700087982184656507663178604288~
0256301032809178930683208348054796404406004388329143973943303754855798~
3428455941347973597653636437782003768530343370467847879406227605555036~
8291283734077931039001754910043306400990079138694028548263112530564885~
6232670175012759357468256018278978168067956488819426831724246559457022~
0711728535074062727393509787172659788305956269001948677993601090789622~
5235107345211328266826801680983859224741245033861355756577715800128010~
6060901042645693769209556934389180024638260542041409669629034564492950~
4916972630124109155642255350249112040872446471321170519612119007486878~
0605420449507491287767712180196519726510924763458098489034692460840995~
6033887777166001716762239435647209143438626668946364334096463047600609~
7367063716588431945752738013827538481311416201672228822473331835691605~
9231550409564541058657945733459011577894299880833955518164755993405649~
5105785932164704714704269752473916308733504827580921207480950243221580~
8879811304840548643116300492651035647464783638450433425893207699517769~
2308418349371977979197848439069282466811201556607020E+08

$velocity_{noSRDback}$ =2.68476~07020E+08/((1+ ((2.68476~07020E+08)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 2.000~000E+08 - 2.000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

7.0.22 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: 299,000,000||2.99E+08

$velocity_{SRD} = (2.99E+08))/(1 - (2.99E+08)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=4.1149598623325284545218512088268102188039910946811976386558~
0160753939790520257054735863491865716223201012701809169983611527790479~
3222658497240262267385405056690115602829269920290353087879674911343616~
9486413972069925394285760770331282237279924018609160978164038768728316~
0531406968534875078577832333539504185571313385042195952455275284528100~
7138725545274527675026680035186616648799908220637488037255581352867671~
9454844123305997509625018297840078701818022646307515554846584672491252~
6963683398698740066738027669387596541056820182861126275565344194935299~
1659758662664614818196205534120148774833870573129618506064394421371844~
8132323254251570617537254148068073848331745082457508052933789745681163~
2359830736077118167775547840846742841492272238239640492986786297474947~
8803408735534527391402339685053357949311041776228455709490748476383844~
43299205043181525040216600580217085277093418843659228262488063700968~
8308922558710238004446806234285588717375117208231723615650087038351085~
6128188110642160238107425400919010778583308253727281607278353902846085~
1594515424480680997478385361594886319376100221569606327205476690125284~
1868067099873852288114873932985949972420769347192385979810234485696618~
5132748765279970898938657204374460401005865847722270782196196612194700~
4114495401127912771780376884614166426500316231832148298279193380638200~
9290885460641504589379112782976355364743476486101441802611408736879285~
8828502845850877670375333635530360160448666076707885123319927609445776~
9865004377983523444834859516220131682660263907080833205105082029480507~
7434979837169929069701367128960132259244962714551942115480981807568912~
8924280945497650855409225466733864334811998348271170831332275734032939~
9391259947870996786528211874561789443641223206768578638406221266988663~
5522705574880336979311479139923877979183940072688886124002119778575149~
37716327318106574499883719204291637707007488862518081351979935517178~
1861160381744029071001846599181427676745182246380994516344303299497595~
3637576706545445917855780107576057559378226364626700E+09

$velocity_{noSRDback}$ =4.11495~26700E+09/(1+ (4.11495~26700E+09)^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.99000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 2.9900~000E+08 - 2.9900~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E0

Non-Relativistic Velocity: 299,792,000‖2.9979200~000E+08

$velocity_{SRD}$ = (2.9979200~000E+08)/(1 - (2.9979200~000E+08)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=1.715073829139882362885098907299031819549798702433245074 6861~
164796464672951666203085539147978593892289668970670298281254595409 5359~
068064328824252108949655881892398214592083312673575015951392557449 8777~
047981849054018389292144153606848701472838299001135694584684360077 7086~
520291464612449311201645701775344150656011795739612263066387112073 6563~
078920613173539586111031880684373852892411771569686884658143277377 3159~
414739316079471021987820374831659616025796990346911513600860641567 8115~
575356041908081957584388810935093686762063917169914045893620246272 3531~
717515737438581538950092925959303771267861324951125404942930235954 3760~
290649296239786980500825485099834432750225326443676434405669082915 2776~
945255904199264848449725556262487923863418574922655222688035700419 0972~
410484349915632200055967010869006614328241740590410986693979775867 1252~
902554385806229022294778797789130277576226640489508932941341379288 137~
733495595068241785508258204474159206797189467917674880739107184047 3438~
852781070937706792527678725632193544760229388987300850973190960277 0325~
746239543896883556093897075438256831510709109648744422000616981447 184~
063524595109664592069085944317425209127340969707320069938225627552 5218~
538902762581843226780080807025198059062530516262759607578800994628 1432~
767770817279153298571180317008657375784196354012059980632104844060 8345~
261558583777505692770729653787219217851223733679686849131319633662 4088~
402345920002175790552430477819273787439045202841137983930077937879 2890~
247857414327218607398420342306511042781132884072646687262813151177 2756~
039760517717127675281154019211943445770062117203105940342940510431 6172~
596943488868870107491379104277532712066233832185023079474220756489 9681~
465674821263222402064236401393018707272167037051835077318878330197 9917~
650524745041596855910739406196587010217016219695390125811870984294 0432~
745625586297154244053314182143923774380665086655592786146613869468 9847~
502171666226013447921232314208016028253127885274700121763792593907 075~
332870619670781625504004449143161502687324115363483 0E+11

$velocity_{noSRDback}$=1.71507~34830E+011/(1+ (1.71507~34830E+011)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.9979200~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$ = 2.9979200~000E+08-2.9979200~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$ = 0.000~000E0

7.0.24 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-1.000~000E+00||299,792,457

$velocity_{SRD}$ = 299,792,457/(1 - 299,792,457^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=3.670422474495321145098697332643636614731840652665058853782 2~
7013038927304795606539329107539530977459892401403307266714777546634919~
9152090376798843088416672481791051651723925876940913074508305171598986~
4989756779403714319460692449484423955798354072777981289975685574654551~
4298972831799604431519590323394249000262462456108051532877187936264589~
8642084870882190097198916694228157928322083725579741561159420825759816~
7873305611858320761188384910232364197636079322012293001154707536839254~
9892729191372624269425568956060028635652563415324718840315289260442073~
5762138954868198501668038133099849840544138378412431129474841542208698~
3927931203595054886690714361836721816899990486224169562559984147879964~
1111610745680321523568222436722525562583822674976213079949728888505312~
7549732615764175940469890544361088276907054723130339901312521619867984~
8384209284741663245889967347151577492412810487666385129252573199366525~
7677280780669662089776070989004945262419788571342501268787482775773564~
3384850843313142941315366266019529421595439701825612895772620533359940~
9320608853297439678762241726784750362615020723773077984286366287236955~
4838843326836156554629103687426304051767456601229239400385976828881187~
8746726177787255367237666833876800231238515271531877270071702346805626~
3688575232586946589140933019858326502951014898656712335859798840 64553~
0638617590028686852392892536106321557545434405731335395878979069486461~
8275254681382899036371097446737310387452981012371287688726648964543901~
4193184720761870810884324027682916782742098271158631286937344693991636~
1115430278034932555314177679809210344451863420115790575503498901094123~
7789109874824727422607661055572613127973036455364987217165119260973092~
2246391383553259592075191131558820039113776496452913486606715202772834~
9354339297232075831499894191983473377969131686586560674268965882608275~
9089240621769193132597720200175916838736829292091421847000131194146915~
0108840123675913769832365422749492102978867267981321067334775029969417~
8250230352040642745120338757011895326448171081926150E+12

$velocity_{noSRDback}$ =3.67042~26150E+12/(1+ (3.67042~26150E+12)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ = c-1.000~000E+00||299,792,457

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$
$$= (c\text{-}1.000{\sim}000E+00) - (2.99792457000{\sim}000E+08)$$
Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$
$$= 1.000{\sim}000E\text{-}1992$$

Non-Relativistic Velocity: c-(1.000~000E-1)

$velocity_{SRD}$ = (c-(1.000~000E-1))/(1 - (c-(1.000~000E-1))^2/299,792,458^2)^{½}

$velocity_{SRD}$=1.16068950206100903329611329814221225676131133385985374381 08~
4807117086940376691216842397467055133273455254527087812514372573490225~
4785645193895131841354749755570136939861883824494772989151191175364664~
5837199962103494363300357595158021543799930459695077226167572875730885~
6132852970438996578453668272535027786566415928718083119319006120491242~
2922613880318513606261101188588669593397824497795404772054616097 31428~
6932390547884729662635645911359341832581010002795301621276618422515222~
0172899698903688874992423663839899557017018318474898620068231703795542~
9149613820120504949170597897303733731615661686450856763387309735209251~
5269760496616744924054006806748253955724474540925866250710238963020914~
1463733401382603095181331252614175222513789071623356719705241041632855~
8894410732184545142806399310243075800720650737808919983350962791276825~
8981892515028038140043509353571347383940495060393715149471290389690012~
6228567055424811338996325080727229344923279829717729902056432557248363~
3340063927562752485518900889903681017624652669625216774971802299582147~
7707568496461047358142873976161836859662287654191995869641181991350106~
3660118517807353660752172105898287029759993739395806407626075354391096~
7324076918685680098034972905717590240664655285254014300189944468959197~
1913805277951722576954054938314694466004961751032755454130652046196087~
2448939562706260301662927784702037336856636198473664150342654136068500~
4428005573581802556775517772185217249203459920711793330517093008974369~
8824397876686665999045319132971662637992682406070295197877869987466137~
8817665732649301494466789639830816605272947933660882436734608821106520~
3120351992479298893402189584244259559816718230060514523876262814401541~
6766080716648334201312074411077228982286286042103171290609722952606647~
1245891137841336703825800301266889246384596226755975357618150423046595~
9501210145674115356062540095569058587580060662224415953448010881 49609~
7275285891872267190551476456626327419703384146085272582692639785388842~
2080027815693071659187499450167105218534865250388030E+13

$velocity_{noSRDback}$ =1.16068~88030E+13/(1+ (1.16068~88030E+13)^2/299,792,458^2)^{½}

$velocity_{noSRDback}$ = 2.99792457900000~00000E8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$ =
= (c-(1.000~000E-1)-2.99792457900000~00000E8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E+0

7.0.26 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-10)

$velocity_{SRD}$ = (c-(1.000~000E-10))/(1 - ((c-(1.000~000E-10))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.670422483677729811283413291795109231561456057328872156 0437~
149365142295164608884273003149249075490422142963227252426779657 9643584~
400845972969652934459647803644771773615704773247174293745428458 1531010~
041687083310015083499002240887208790870835395968453406213551256 5836496~
758386686480435215119340983070777923759393645893306884270578821 0422580~
381025883822947120042794111234055377571862290869373773768999460 2821833~
595222819283003713744733638000762045322539230221513071820038491 3901034~
881380043384992560512412338686449757406945645097903813113162501 3719492~
837833115337168725442526608702417600062574044871302250759566871 7185860~
337145785675525567056557457575128703280371768177006719105654928 0020262~
757005335601502632063059888859647082027661036713853219482542880 911392~
849774753345374375058880637461647042879986064133491572908002441 683970~
014935904722322011625412221427017626445207272684328565979358490 263356~
572745290169353900938606115744642915763917957597573050878044420 1133431~
797674651721577143500014550331300423326339331984387420025435221 7955189~
700213507465421088417775761842876009667487974870479464103155513 2525605~
134599695885543675931239712451581735927573417000459162803611987 7037024~
180499732335454516290105806701244171421582104077885078048505985 0694953~
694614685555775100858687568112248989163202853062685367332791359 6042984~
427031960319134895802428292357587426740703516996997121596933995 0335425~
552231495612135882564607936483976305366762918570177535299895796 4239943~
131839217161535776277369059411169670720050434664263392504864010 7490429~
919482549190461005328415459066852611207288669033700876035281130 1188578~
911803001113445228536380952141164977964971287511659683726385363 1446940~
406033548820434009227613468140204213098829707178907231185144594 5573738~
787572671006614406912492731872283853892856422855684354720256735 7824542~
777910762967587134361023924755692757898632323662922790072328655 7457489~
903665718429575309955150534756820957613172963511084636429666438 2606503~
359137411654448774488641454406087382561030069808537 0E+17

$velocity_{noSRDback}$ =3.67042~85370E+17/(1+ (3.67042~85370E+17)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.99792457999999999900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$ = (c-(1.000~000E-10) -
2.997924579999999999~0000000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= -1.000~000E-1992

7.0.27 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativisic Velocity: c-(1.000~000E-20)

$velocity_{SRD}$ = (c-(1.000~000E-20))/(1 - (c-(1.000~000E-20))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.67042248367772981220165415777547211082598747623369787521 90~
559743469644484244286487795617422219813492015420435025295772088063410~
536569391937836982048861466897505245153603146013729259232596580392872 2~
000565387190258550193950081700712647172631337681526056533466272157850 9~
742238138144886028362826501298479289810652002922001880390085165714016 4~
653398306492696214941591018644706808281870994461125696461595162916180 3~
730669149410108702905604713027380869904902394579402614507723882100451 1~
806863082632177439662502742598573254709929581783496306240425043008209 6~
195243455089753989891622672888955184907212959057768174350914480547187 8~
211877590067987904754688623240156401396637089120895386597466635805606 9~
655323176699685699982108154001444280174119061339710083989253016641583 7~
229983582766763009200769289856895056383503126104123151205295129687860 3~
895863915348487657799639072620197169667556709534000960172233389959955 8~
450945913805586095863789803295266977131760962886512114080444151513930 9~
644096012971856843502045215134872753785315970781878203307376511396841 4~
428384266583817725030656105499468155221594948943035648594464068996849 8~
682262448389291141864764012811216198791109440693860738093404535476023 9~
991803114630292314057029849697352000540266465933059669974898221796538 8~
984582141596196160627598200687522667919673270193903168504888024133129 2~
242653039233754301292249026278876603078221309974388724251759502256282 2~
147413238119813590852256620923225164980091341498994954764464294304868 3~
033630913272903721940031910599067192707171406043599158405002267130934~
512174405177373074749860509157838168232773871910937413187475566261718 0~
214704431714996238391194193927868700835000832648781169578325195221152 1~
128817883540792275527753765107071384382010019171329558382261908147852~
162647975504455148255711516997740652839616874878252039864070564979240 1~
946733970022559266083924703832612072457416069241181552664826552676707 6~
465864241961554838789153872877807105362264774061478968073848924640716 8~
107142709562501014152093497381282882051336528358578 0E+22

$velocity_{noSRDback}$ =3.67042~85780E+22/(1+ (3.67042~85780E+22)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.99792457999999999999999999900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-20)) –
                                                2.99792457999~99900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E+0

7.0.28 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-30)

$velocity_{SRD}$ = (c-(1.000~000E-30))/(1 - (c-(1.000~000E-30))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.67042248367772981220165415786729619742402376415376992995504~
82143322770636870665427940946558227450115366856492722985080538468 7502~
46583572584352923444022056015554162050388558676057264669161014765386 16~
003233661381367659455995320510226178713626057047913082041202254430540 0~
99351706816518642499244051724858885026125245551365675552594832365246 88~
72952307099648501348557152642769104901531795471966195165540353529635 08~
25272407127766831643073863797683051468564809992792218786238101983195 76~
14929174508264226815975357116546769094179432442882577452494824667761 14~
24789673461619312609594313575261181715877710200070075942014258594599 22~
76294576697744538824246967586161858793964036303554663828631060583975 69~
14131291672638869242925137126781993752469359025067149395077546175598 03~
83125176655183513897392989077531517321434178493207615583599790451682 11~
93211925537746974353000137924505669195600057489457370224726930282874 19~
91600601508918805256642687528284544869405720993444080260495046223825 6~
48199501625160235177695520114973070324720904660971079444909097936585 96~
96287579960139457274769173237830753033592192559722660679557187736336 58~
98547249708948195863605106031447121090576922386728220789279605945366 4~
65767424456966526816460501810255224302648782652692794877140104203474 32~
91487714387916485400956412890792612698635928533359937525243317042518 72~
60557411553120446510988515555930082004817282102162688294722703964234 06~
06123381146318028902409504621429651940481246829925177176922196083148 07~
22322628268512317238435238444028804283460443691754693754575348516842 37~
81801680835856271071199277030325652524600964432746860816208709612224 39~
01594677942478527643837848878815959826889412871761340468591496175440 95~
53446891670750190964080406844034534412121917282085704613961261950267 51~
97714506945895208358436345925922984622961175758042654787102666059104 44~
79095079228533204961077231396018705357398639095431039387462917761680 05~
56435753669753792979533266307875089028128557701792151570880611337002 9~
47945154907725895663295858399780246123728609214065510E+27

$velocity_{noSRDback}$ =3.67042~06510E+27/(1+ (3.67042~06510E+27)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.99792457999999999999999999999999900000~00000E8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$=(c-(1.000~000E-30)) -
2.99792457999999999999999999999999900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E+0

7.0.29 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-40)

$velocity_{SRD}$ = (c-(1.000~000E-40))/(1 - ((c-(1.000~000E-40))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172813573558 7424~
89348795849442896655482756160407340989195241013502941850756946094007 83~
34333111601271628979253501422840235067428756125625569186958393208252 00~
45690604701836283422162543686825020965185568270933608136135378878777 43~
79619203354085363453196531791102355317455365210996313435049817478348 37~
79208069334963338056529623257403218067252599416072522262357642634640 48~
12346697815324766659473890950381711352916302991957768503984829505379 41~
81784820774825572674103463982187408689231204465061729171355041130106 08~
31112489025623845565369945933682758359887566330404006689336079419944 19~
88909333667111802833956777180456492472101490141087130626406311726596 34~
77417316574158822919492251092840614831954463938549045237670687723507 04~
73477622628372145265863824010803638287464844550760401909986110712032 42~
89684865916226530666216245808358580082123825002303229018219330790170 21~
99748689451083670217626121633678943483003436173299786921030580478993 62~
91501952773527434769113236434001795322439205014482843066909487303087 75~
82505703007380746433510973406344437951740901629667235747180240324820 72~
84531281425646088785123401241498722552096081754637875464787096081972 58~
62460038312607727138744371033499591860389985279565925297344415588847 55~
53747597906153691582501874591698462389529660914304438114830564959539 56~
38662406996137625311726410727226119788457666375647822874077065086769 61~
34445226305915980584255899566825735748971915099323982639921413519169 40~
46157220295234108712294764168314887516881094042091054415386473029792 99~
97105641676664787294241005084396746689485344693749790865804998253089 46~
05339560325200209025786262239563833977580107633892397963041687296173 43~
08224753914701771699444171816136597649400123408237059458684896341721 72~
99055518652131930473443122279350215234750178697492843232017429339880 73~
18849248046841212611717449806787947581327420033634718757466895003185 39~
73049859539597982788329517286595237083518042344457948179627762689373 97~
36566912956747829235547028041557827049556921283356 0E32

$velocity_{noSRDback}$ =3.67042~33560E+32/(1+ (3.67042~33560E+32)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.9979245799999999999999999999999999999999999999900000~
00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-40)) –
2.9979245799999999999999999999999999999999999999000000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= -1.000~000E-1992

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7.0.30 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-50)

$velocity_{SRD}$ = (c-(1.000~000E-50))/(1 - ((c-(1.000~000E-50))^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172814491799 6084~
6971167505016344396336335875877471379467445254382301830460678324722366~
6203003505270767519610454735066064139698034685328118892445742579243948~
8522388020829722140577898076445275321618546918754587352191387719569140~
9230630847601104862445749782657119819676349571268638501765141988551268~
9964579280633023390563933551756591733515819439844790571263189396336554~
8959893483580245117519040966888595850454316102682960169739550114633303~
4893644371898053256589086780272997014302926663534714635889587092570037~
2829692525767427980404314141781562986411648998532152757938788278606200~
6191209269574564478479255056681549475232909548245076077501218139627229~
9081106769919923542573584739753109534102410708809705939550821393043598~
3639808334789686309258223148848311792116539831226618952399290865245881~
7019408508531522368666647516794106088853454977025653571386308028385394~
2595139671791793338668416284362163385301608774395619700071522923768814~
5238837563691000380888645227933490738094440788583829370530900060995843~
0418919907397555039605135996397418112291382286439249542748762537195361~
2697073978021397656273103506652782532708456713856316744296719148024211~
8463046329886085586503758616082182178727038297839544247975675937500062~
1968223065325566824876921579464108749621719559433867664916145220421989~
9925137652175807166538822636907303846947839908999083539965840187044569~
0439394269885532280372027590069784465250875490569603431111567305988871~
3194392823969696724021282485237134624621658637660310601095971842403111~
2469384784938673684141234931724605109910694694130016972712659691544167~
8466388194669952834972041689471964828937616425597175493365719347904514~
6494436572343169264136816391869580430219985646249465400358576481508455~
0317730766167370744025873320292202485624963591140317044538567947782501~
3258049400297946862737723191558758837923946085146645417879487369890906~
0021731012933515726704896609873470818234883508006055888764055853374 96~
7345854660588807542253165260224205862636965484050460E37

$velocity_{noSRDback}$ = 3.67042~50460E+37 /(1+ (3.67042~50460E+37)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ = 2.9979245799999999999999999999999999999999999999999999999~
999900000~00000E8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= c-(1.000~000E-50)) –
2.9979245799999999999999999999999999999999999999999999999900000~
00000E8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= -1.000~000E-1992

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7.0.31 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-60)

velocity$_{SRD}$ = (c-(1.000~000E-60))/(1 - ((c-(1.000~000E-60))^2/299,792,458^2)$^{\frac{1}{2}}$

velocity$_{SRD}$=3.67042248367772981220165415786729619743320617281449179960856~
15357616481997318834354134895627740545111898243645583704797344896676666~
97853573324971667101002046394642029147246360735185061314597857306235425~
56039655458158576354306938856241530068309302327817392898072922315831000~
49362420645624750061382442619991912459689366060580002729462771101086668~
09854090672923051811936647433179151310427440768140914155048393410342900~
53513993693619773507914521080107284703172280260241662188247483281723820~
11891479646170213402691777007103557022838541606005647184106442055042150~
00642890439745178106977882068435270237044757551466136530476368984121260~
33197606289846371188652245217636571302888402644188853491514963623037040~
37962613837265428107214545956156251856327741052994176535720515759344950~
28513813636097275903720036625652697578917475653381831100015946874665240~
55538650703140824005679040412811253405411767790375054026994630219382450~
91706726512716924529043285108759793413787229399394868029486185397085570~
72549858214309801165794024507277669626383694000911232384966885278303810~
67091429647660269365216080059981902296449616524606915363631451514716530~
23489308179910709390685028736699177783364984109489293035946511026429050~
64301573131119638280668992253714087029601282420332429553015533335575850~
41512876304555542703329247079059458288526750741074690541374360346495430~
20044707903122780810255232391562946572510998725659354644851578258566410~
31428455943320959885906291809397357005947022900630940941767939968446680~
76554814045685974557409240893481467857118183905449716029268814790007560~
82392492604093109086079893023302181172195061449622852237804160268294260~
61704126704548429667702413190455377095607810249823807635115089628603880~
04187473808775869285036427924114799187232416240924969204408368432405430~
86525448940428242501539722422436108800847220523411145407783049504947100~
23398364313213447081360681920520980714247228589965873645006504357456450~
09855598697777200103550119931196402868073195163975374325767053171270530~
62135576722042598227478821137213490699678223559362E42

velocity$_{noSRDback}$ =3.67042~93620E+42/(1+ (3.67042~93620E+42)^2/299,792,458^2)$^{\frac{1}{2}}$

velocity$_{noSRDback}$ = 2.997924579999999999999999999999999999999999999999999~
99999999999900000~00000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-60))-
2.997924579999999999999999999999999999999999999999999999999~
9999000~000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= 1.000~000E-1992

7.0.32 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-70)

$velocity_{SRD}$ = (c-(1.000~000E-70))/(1 - ((c-(1.000~000E-70))^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172814491799 6085~
615357616573821405432390422815699795275899958503482320953388849625489~
829190854276324048397851748553339666352935127520386171774938317831 9841~
079239086715054720715159921887199028571450199544709063505373912912 3198~
299374198240883308782287846112386436020041626412055442665638213169 2251~
303566585864580552740276852746938071239986600193220503881472417985 1663~
166018187953015505567661161901511556467399746680227406747546160441 5240~
351984972257191308728844173660361476450956113850065800509905012328 1801~
163290279000887910622863837685744558788163666195771991176389135035 772~
973079879069776761527951935549934537109289480614846296017331241474 8518~
257536756047623564859950546503712094619066102701178384316228781099 2050~
093870333388405177584076659800637383959593989018331486447823449493 693~
516358124686538873178581194384693196438231806458880954471256390399 2292~
653291545630588927920427213882138560025162985696758458905279407008 9875~
158591474843597915604287677947681727627556166220945640643427115390 4750~
431646702232577340410115446966369310726432870775333497252396836449 1560~
720481401359055442944546389639190829584057257628684510792908621427 9960~
958900606762997570553934940680168283832281054092847247574068199802 2683~
072592462506192482133103206801744879158023834351509878761575858426 6021~
815387438832966867687177025633146052306919174388335675392942637766 3994~
065146194465632083372648403860412024623784795012070695653754831827 0205~
323570172885517520658974540898052113955005358648532371709795626872 8415~
824894561713880001481384911950718101392664817853884811152702144691 4180~
643126862903885662425777510644664261999259803728360906503453726644 8764~
907687360902806176693503281435888228162308286396877525582274943248 1187~
183996370734687524859486982850669330056812594003947026620867375750 2067~
644329009868809093063589229670673534778703992801785656873608211710 198~
523457489533528562996679990360961359650794875491499625169057854658 4991~
682318449113935356810718870957777198667017895912473 0E47

$velocity_{noSRDback}$ =3.67042~24730E+47/(1+ (3.67042~24730E+47)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$=2.9979245799999999999999999999999999999999999999999~
9999999999999999999999999000~0008

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-70)) –
2.9979245799999999999999999999999999999999999999999999999999999999~
999999999999000~000E+8

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= -1.000~000E-1992

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7.0.33 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-80)

$velocity_{SRD}$ = (c-(1.000~000E-80))/(1 - ((c-(1.000~000E-80))^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172814491799 6085~
6153576165738214054415728314755034240679071639765611270113225586906031~
3692567265894577764291761150924606071589754933474020682526272809306927~
2218888531614620145422723124115151708186978444879087658369002983757817~
0715699109661216987726575121711467914734856112722989827007565603748785~
4867220707912953111102755613642700628970636374637153013684134427953360~
7186374556509686039398079663576517648918504932317597731724223822511287~
1734052509208758833301080744268240877671219349136799087646152910442854~
8488635340169757087548067174106418101313095376363790208905367755559534~
6695983576855570358047001242205111629137010536603744570505743998421 35~
3067244817812614367298792042320885092535010650441649554684677036618771~
2836994885950095015918925175921570190671026689364339146935148765215076~
4246584566382045078762583595493973240614205329172113600120769002881241~
0529079923892004139570097992624583779217279818706946912528690962089837~
6469827282663894161166978642184549349943677425403958696729854382977867~
5484067021840750975282071545107262987977351716076246575170906739906229~
8899530951902025523864667574260889938929374175936593968456673308307524~
8737616207637302643150466337926485758931245853992397153545162188755944~
5971461311694423922147218353512901696749098843709571465167047783529781~
1971466181516149215845659978807578445917479958273115261240395339 32637~
7450898629134886380125056600409190666826358550224102166594359084686247~
5288226396297714390449163892509566442971224669734376038909703298722579~
1858345212599237151099525629701822894136087228086205242473380342327383~
7781166683714306428643528895540363452165777867534602563340299374530329~
8495790028186245479931388283043284538264371151944444934540196306330703~
1144097002548947813208582671120254065339926576709626557801128896524479~
6919646223115725781478526484440653353617696900002812047833693431557807~
5570760689722349484954803667885894085145098174778999748193296871540769~
7177998286145324831153724277679229704175490286018860E+52

$velocity_{noSRDback}$ =3.67042~18860E+52/(1+ (3.67042~18860E+52)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ = 2.99792457999999999999999999999999999999999999999999999~
99999999999999999999999999999999900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-80)) –
2.99792457999999999999999999999999999999999999999999999999999999999999~
99999999999999999999900000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E+0

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Non-Relativistic Velocity: c-(1.000~000E-90)

$velocity_{SRD}$ = (c-(1.000~000E-90))/(1 - ((c-(1.000~000E-90))^2/299,792,458^2)$^{1/2}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172814491799608 5~
6153576165738214054415728314764216649338875268557618475586304392932015~
0429847807434643636604894878955930438122494787121004645412305765995260~
8869674786609322586437342819718672833855944194958502337084285324321 71~
2038106052907291033982316271039209471743049680797346810089485912599 87~
0649662907665777067845104513757391825726350485203585992007350978201145~
2334659281576111225715255912366314481053982220446693893267811505316287~
4540078225742103790757259903703485110715741924430672416612698269737056~
3259670887151636636925388078662421917734630299473370047618558381974783~
6052986256936193928897623204773246074779506144201515375522625215 3788~
7278417809572497997019195453493212736143811252908578036506815352215094~
6055692949293443803822987559008374375027182835108962379942290159185622~
1771556489315837475972231802646585220447296535393420557401045978903240~
0567740752959669228869138936478268043606512923505400152537606654481791~
0944493519565193052676836313064876519979707058527413766085498745237616~
8928547808574653953852273283198718167458590396910517286484091 79798278~
5049990180886164434304746991464129170371748106224187124276858649112415~
3432756743489075347874802730408009202467916820632645726144296383566416~
2265237214215801361612970544629071665463576720443962796322121457692195~
2149688911873924113353776845110751953268639854479946677328276362474386~
1910046433024582340336434690713384239009659772651797044303031353831197~
6845842158625648894990886682385098011103900147783023460442067719162655~
0137131565579982855394297847747576483126782229343959989086994492182559~
3796436606425762551224419124761856891505123576466870647856613 72851021~
3795449212790116155292160818870762279370704503279960273643973034252510~
1487892112528868353271721266348291043900770886853152583945551411714541~
9980510409520605871979338074599124023548087814763711500681264117430637~
3215710807077615432091724360840288531895677937244419940603961722 54540~
1843538181725671302506919395772352121306744196882390E57

$velocity_{noSRDback}$ =3.67042~82390E+57/(1+ (3.67042~82390E+57)^2/299,792,458^2)$^{1/2}$

$velocity_{noSRDback}$ =2.997924579999999999999999999999999999999999999999999999~
99999999999999999999999999999999999999999000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-90)) –
2.9979245799999999999999999999999999999999999999999999999999999~
99999999999999999999999999999000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 0.000~000E-0

7.0.35 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-100)

$velocity_{SRD}$ = (c-(1.000~000E-100))/(1 - ((c-(1.000~000E-100))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.670422483677729812201654157867296197433206172814491799 6085~
6153576165738214054415728314764216649339793509423598838465505113479322~
9235873791108371690758901466187243810925627223774278630776940351412273~
6186069021980422276407011055508655330161968656080509918521551188289883~
4055367636542626029188169734301377532498384339695680099563064756955086~
2954143821998933281076126623912177147390359499865098309658339755884410~
5955754699418287048970757159901742959786352223450444737836885522662394~
0679703819727261561483306255810615029892626522201909850740680166371933~
5408516133023644530025666048985663013508269444310089342605863205698020~
9814681362198816920542359027264407045703292238927207050543428959201533~
2054115174763852933974836698396484807089744453848257908228450117925490~
5898218600247815861781409662388284981075507124816313354313765049899007~
2597231511871841215849674158172598215101348274363030604948835501279156~
5025153695630101916956921425356792973083976021472175188210473332090867~
9348881289207502723983602333144275278587376589601401884509924913935687~
2218082828474082367207503336632588507428391522901914843596040969210006~
5948986724264980439935551396338664169746848711786924328228907700567001~
8135720891430957135000207667348031341758444122601775133243907072569583~
7874294529453269753593255349485944564524923936773846839304512573117600~
7171872651142002066561174899091535212662646222684841174406087403787969~
2997582315882885742893016332519380772213746226608768531390555634068832~
0033096040166234592498590103229491382902332830249917696926036449989072~
2630452363927338025338845989878304821570997820855711295890907627110073~
4833186460840648476042471969382983216730372515451578856537623984892086~
2111782217737887254684669935731438695521598959609152538210931132688604~
5164368059720073059475535635092040045361346707759820393118131812503480~
3785333237370451736806237969312781249986072523091881070648608249924444~
4578009656530576286183720647535651721417856052267100757198244155873395~
6314855516376433134391533448891835198310172043988110E62

$velocity_{noSRDback}$ =3.67042~88110E+62/(1+ (3.67042~88110E+62)^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.9979245799999999999999999999999999999999999999999999999~
999999999999999999999999999999999999999999999999999000000~00000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= (c-(1.000~000E-100)) –
2.9979245799999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999000~000E+08

Difference $velocity_{noSRD}$-vs.-$velocity_{noSRDback}$= 1.000~000E-1992

7.0.36 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-200)

$velocity_{SRD} = (c-(1.000~000E-200))/(1 - ((c-(1.000~000E-200))^2/299,792,458^2)^{\frac{1}{2}}$

$velocity_{SRD}$=3.67042248367772981220165415786729619743320617281449179960 85~
61535761657382140544157283147642166493397935094236906625521123321759 03~
71751176797828986779937269703261270200626468819682938402616692708972 09~
96909709637632238690856353635260133762889600582318628082477352458303 32~
76339939394296850657128956553244556135477540410416265006658437551885 85~
97086019027520083703223360150313471729587761604943167596790327643370 61~
11472428255790135869107663926787407750186789103858027160042273933296 44~
34497994072612287802651958256421167011521767410984031784791215178983 49~
51182626749909284276369767891547255316839498052278113961881987536599 62~
00752284288865342284530082970540011411504625310153234297502850300321 48~
14157711148612869558705511311365265553602633752356921694964220200003 37~
72951159581780939390957848199211956566591444048710886986261254344099 65~
25313240644753346158075819507871574425701539791623341475701105568216 99~
06887169758273225167829843775444820481343522315839960555949403489257 40~
58180850500143736418461599733016547938575165823123784806135969396315 68~
46887423249514708273391303301176546987021454032944585801634052341386 5~
06374144613443482434219389369821270151732290340022654796639323485572 09~
65449258735930803615588116297193951740326142738207297998735319327972 48~
68392820014017129259904755023646983682026453764963067268322745765812 44~
61029427438222700931200772129579362200095755645162967316144310356731 97~
40461794243153805879233114447106397123331782677361307314580780996201 71~
38532888417900189857378315925085192468362188698814133751264488742552 85~
88855216024019750868367049444878265303107040197695157332801023088451 46~
85536688654590191001767849369148195260073871610838581168028744012190 72~
02275101458539159327468361822197221647112759274441912412733120526206 98~
33357211961624732327148810335218992835527867414187353371173188951363 79~
84545536665874110505160615678903150334509781964790179845787299361711 58~
06275756588134778959579515571410744208399135335508181329203818299796 83~
30426564051666184742165032533942957585461100249712 20E+112

$velocity_{noSRDback}$ =3.67042~71220E+112/(1+ (3.67042~71220E+112)^2/299,792,458^2)$^{\frac{1}{2}}$

velocity$_{noSRDback}$=2.9979245799999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
99999999999999999999999000~000E8

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-100)) –
2.9979245799999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999990000~000E8

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= 1.000~000E-1992

7.0.36 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-200))-2.997924579999999~
99999999999999999999999999999999999999999999999999999999999999~
99999999999999999999999999999999999999999999999999999999999999~
99999999999999999999999999999999999999999999999999999999900000~
00000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= 1.000~000E-1992

7.0.37 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-300)

velocity$_{SRD}$ = (c-(1.000~000E-300))/(1 - ((c-(1.000~000E-300))^2/299,792,458^2)$^{\frac{1}{2}}$

velocity$_{SRD}$=3.67042248367772981220165415786729619743320617281449179960 85~
61535761657382140544157283147642166493397935094236906625521 12332175903~
71751176797828986779937269703261270200626468819682938402616 69270897209~
96909709646814647351578223293339526201776345852190976337518 74129039469~
78305758795817799130020905046879605154895368426336670162578 91662069011~
34207967687986734738323868616900740887199959085711207451941 98415565773~
20229636558351767008467762705268731658896535462732467356774 39747784279~
46549294024778773619967530304133926004853836020109231560050 69523193862~
29553787372486257470454267129079480664682300638003316856177 3413702120~
54594773871905379358038505036610233829769143722222678491950 43479214009~
28397598541709868296090280057070432324732055759534645893772 48356385275~
45604611977182546751434185590193275755697623197349318851583 9306669738~
98924634011730596443253747026683586945234483149168790474221 32948385956~
40121803372481518286763105586748893603436324411602752103711 34477883370~
42917535644063432409806442603524940498417931118684583395500 3102866168~
39001189863006032491914423058913929311162922543062653697523 77932753709~
53824668419801677221027090504640983939352565139560465646364 22386852196~
94817932376210486348035263614250735945635745091865361577715 23184298016~
10809236596712580014196925409699770682176031921815070472230 7349011785~
41306979550208706198712220413541947912774548624146252366107 02286793162~
49034502566819644691378928744077458954128964440198970187918 03266625630~
33244519892250055589175336377881761948574558433823138280394 35766412701~
61596214306993603796941287619024072507781119237504549671576 08053064733~
86439473187285140372701457346893942990702244909390057651280 27026977416~
77686150278069337558495156415129193445088456245935204646913 81789211204~
50550759458322226358391083244026795522425230617246052414984 29778174698~
07516919294737848070990760303251436851292889593169289448730 91186656142~
31309618101454597516575907537120774145125096305720541357153 60833202950~
12534192281857235232704796554692511464443774100077 20E+162

velocity$_{noSRDback}$ =3.67042~07720E+162/(1+ (3.67042~07720E+162)^2/299,792,458^2)$^{\frac{1}{2}}$

velocity$_{noSRDback}$=2.99792457999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
999999999999999999999999999999999999999999999999000~000E+08

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7.0 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-300) (cont.)

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-300))-
2.99792457999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
99999999999999999999999999999999999999999900000~00000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= -1.000~000E-1992

7.0.38 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-400)

$velocity_{SRD}$ = (c-(1.000~000E-400))/(1 - ((c-(1.000~000E-400))^2/299,792,458^2)^{½}

$velocity_{SRD}$=3.67042248367772981220165415786729619743320617281449179960 85~
6153576165738214054415728314764216649339793509423690662552112332175903~
7175117679782898677993726970326127020062646881968293840261669270897209~
9690970964681464735157822329333952620177634585219097633751874129039469~
7830575879581779913002090504687960515490455083499739203223699601312900~
0166066641146928515221218953060270670660148003418409940043561920467714~
9850979576240332621325845074780585360755700211376756786524098474700040~
6852410170517732513653265317534268321309258677965164654225901453758085~
7879416028383576900820454153842480627044832250903190457243171868308824~
5449607448348143391939284266060868636178730956313339939178728826817259~
8529875950354683276324448291724459322732079195138149494986891880555497~
9691752096937726999447027461560876261537489997539522677613724282928718~
9935928405617322022592971289133553393981260754249805073132329586687467~
3977328787209056007610191373731542630608655300745824308561854974288412~
6876953377340619735964696442934086828673921598281773085663687960863449~
0885663111733605174211670983466397048900412450814351942178796542948882~
1663122694393225117164325242892156102810935288841580635355200512915712~
6678951741385733889064392335378206469956698464273205490015425597994373~
5459712743479046360355205465112913695960046875235227448865996064085319~
5936677949512062624564813322274167988728631425385985541635566836283941~
6167755820747631775209059009447094785363146936805773325126170509427631~
6103170055580902303853442858779822602266099181706446472182307254107858~
9379404586517942947728131444073344595839787332254018571499393858724840~
9737054170748423801548730934016991934513518110072247255773081459807269~
2708309143703863908834423254975870096833644749062038054775687699203571~
1172273543738635849887239715049993454515634148187007598048209709934324~
1031217258501218578884556710563726314229470863308763744188080407604136~
9949775158779779781058261663231590287212627627819365743115999262419333~
5784282638871005776527367888328602979827148904086380E+212

$velocity_{noSRDback}$ =3.67042~86380E+212/(1+ (3.67042~86380E+212)^2/299,792,458^2)^{½}

$velocity_{noSRDback}$ = 2.99792457999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999~
99999999999999999999999999999999000~000E+08

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7.0.38 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-400) (cont.)

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-400))-
2.99792457999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999~
99999999999999999999999999900000~00000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= -1.000~000E-1992

7.0.39 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-500)

$velocity_{SRD}$ = (c-(1.000~000E-500))/(1 - ((c-(1.000~000E-500))^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{SRD}$=3.6704224836777298122016541578672961974332061728144917996085~
6153576165738214054415728314764216649339793509423690662552112332175903~
7175117679782898677993726970326127020062646881968293840261669270897209~
9690970964681464735157822329333952620177634585219097633751874129039469~
7830575879581779913002090504687960515490455083499739203223699601312900~
0166066641146928515221218953060270670660148003418409940043561920467715~
9033388236962202279405237513667330630628048466418145618615468671281980~
8373358643409681007288314336952096337229663833885643723030155165952951~
8346067063484085367407723311454678107812872106054846969530292744029648~
4200366990763125600258589908295792673469865907467114966619663358837657~
8622321181927570090308994358700638581196291684024122910482816903487116~
4805137224173455782133772398094492337047931008752509884973449620539913~
8250422219020186191748294362754273552597116627173429927317748093478021~
8774711557192145630780272377282257798067856211948154849723856589706207~
5933702400300648135698692638715605093329872382217467267272962934915998~
6455493244505544469731908236758962760798017784856108913497501092106298~
9060487649008472702157101833135256420825618822458142938397801341698846~
5639896451834411485770684719080692028401998915604904257281115371939902~
3446123010657385210861167790202045208393128702289223027325966074993334~
4584414378099917203130363352517651296565738539863682826059009004624701~
6264323633992074550412627518859302194198730925151432247801505029515262~
5145521516070475197286786251499227957476999678534994170252705526885685~
6925127014298410710324461139826012877085421060259817404938715231086034~
5463408005418667839593304286593800431054321082796804338029278128879997~
6715498053143651017971789698900843827016788909625706597317479011951869~
1938510048694239627663917894678952304325514865167557855114792344883002~
1095452352334452310483189588720303679464115041539396172742847400273939~
2677861676825847341174798690828435242789541793851760863053500330598521~
0290497011947175973967317166301345758484281385735950E262

$velocity_{noSRDback}$ =3.67042~35950E+262/(1+ (3.67042~35950E+262^2/299,792,458^2)$^{\frac{1}{2}}$

$velocity_{noSRDback}$ = 2.997924579999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999999999999990~
00~000E+08

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7.0.39 Appendix B - Relativistic vs. non-Relativistic Space-Time Values Table (cont.)

Non-Relativistic Velocity: c-(1.000~000E-500)

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= (c-(1.000~000E-500))-
2.99792457999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999999~
9999999999999999999999999999999999999999999999999999999900~
0~000E+08

Difference velocity$_{noSRD}$-vs.-velocity$_{noSRDback}$= 0.000~000E0