### 수학 상수 표

기호	상세	값(소수점 아래 20자리까지)
$\pi$	원주율	3.14159 26535 89793 23846
au	새원주율	$6.28318\ 53071\ 79586\ 47692$
$\sqrt{2}$	2의 제곱근	$1.41421\ 35623\ 73095\ 04880$
$\sqrt{3}$	3의 제곱근	$1.73205\ 08075\ 68877\ 29352$
$\sqrt{5}$	5의 제곱근	$2.23606\ 79774\ 99789\ 69640$
$\phi$	황금비	1.61803 39887 49894 84820
$\sqrt[3]{2}$	2의 세제곱근	$1.25992\ 10498\ 94873\ 16576$
$\sqrt[3]{3}$	3의 세제곱근	$1.44224\ 95703\ 07408\ 38232$
$\sqrt[12]{2}$	2의 12제곱근	$1.05946\ 30943\ 59295\ 26456$
e	자연로그의 밑	$2.71828\ 18284\ 59045\ 23536$
ln 2	2의 자연로그	0.69314 71805 59945 30941
$\gamma$	Euler-Mascheroni 상수	$0.57721\ 56649\ 01532\ 86060$
Ω	오메가 상수	$0.56714\ 32904\ 09783\ 87299$
$\delta$	제1 Feigenbaum 상수	$4.66920\ 16091\ 02990\ 67185$
$\alpha$	제2 Feigenbaum 상수	$2.50290\ 78750\ 95892\ 82228$
β	Bernstein 상수	0.28016 94990 23869 13303
$\zeta(3)$	Apéry 상수	$1.20205\ 69031\ 59594\ 28539$
$\rho$	소수 상수	$0.41468\ 25098\ 51111\ 66024$

## Imperial 단위 변환표

$$\begin{split} & \text{inch} = 2.5400000 \times 10^{-2} \text{m} \\ & \text{foot} = 3.0480000 \times 10^{-1} \text{m} \\ & \text{yard} = 9.1440000 \times 10^{-1} \text{m} \\ & \text{mile} = 1.6093440 \times 10^{+3} \text{m} \\ & \text{fl oz} = 2.8413063 \times 10^{-2} \text{m}^3 \\ & \text{oz} = 2.8349523 \times 10^{-2} \text{kg} \\ & \text{lb} = 4.5359237 \times 10^{-1} \text{kg} \end{split}$$

## SI 접두사

 $tera (T) = 10^{12}$   $giga (G) = 10^{9}$   $mega (M) = 10^{6}$   $kilo (k) = 10^{3}$   $hecto (h) = 10^{2}$   $deka (da) = 10^{1}$   $deci (d) = 10^{-1}$   $centi (c) = 10^{-2}$   $milli (m) = 10^{-3}$   $micro (\mu) = 10^{-6}$   $nano (n) = 10^{-9}$   $pico (p) = 10^{-12}$ 

# $*a_b$ 는 $\frac{a}{10^{\lfloor \lg a \rfloor - 1}} \times 10^b$ 를 의미한다.

x	0	1	2	3	4	5	6	7	8	9
1.0	0_	$43214_{-3}$	$86002_{-3}$	$12837_{-2}$	$17033_{-2}$	$21189_{-2}$	$25306_{-2}$	$29384_{-2}$	$33424_{-2}$	$37426_{-2}$
1.1	$41393_{-2}$	$45323_{-2}$	$49218_{-2}$	$53078_{-2}$	$56905_{-2}$	$60698_{-2}$	$64458_{-2}$	$68186_{-2}$	$71882_{-2}$	$75547_{-2}$
1.2	$79181_{-2}$	$82785_{-2}$	$86360_{-2}$	$89905_{-2}$	$93422_{-2}$	$96910_{-2}$	$10037_{-1}$	$10380_{-1}$	$10721_{-1}$	$11059_{-1}$
1.3	$11394_{-1}$	$11727_{-1}$	$12057_{-1}$	$12385_{-1}$	$12710_{-1}$	$13033_{-1}$	$13354_{-1}$	$13672_{-1}$	$13988_{-1}$	$14301_{-1}$
1.4	$14613_{-1}$	$14922_{-1}$	$15229_{-1}$	$15534_{-1}$	$15836_{-1}$	$16137_{-1}$	$16435_{-1}$	$16732_{-1}$	$17026_{-1}$	$17319_{-1}$
1.5	$17609_{-1}$	$17898_{-1}$	$18184_{-1}$	$18469_{-1}$	$18752_{-1}$	$19033_{-1}$	$19312_{-1}$	$19590_{-1}$	$19866_{-1}$	$20140_{-1}$
1.6	20412_1	$20683_{-1}$	$20952_{-1}$	$21219_{-1}$	$21484_{-1}$	$21748_{-1}$	$22011_{-1}$	$22272_{-1}$	$22531_{-1}$	$22789_{-1}$
1.7	23045_1	$23300_{-1}$	$23553_{-1}$	$23805_{-1}$	$24055_{-1}$	$24304_{-1}$	$24551_{-1}$	$24797_{-1}$	$25042_{-1}$	$25285_{-1}$
1.8	$25527_{-1}$	$25768_{-1}$	$26007_{-1}$	$26245_{-1}$	$26482_{-1}$	$26717_{-1}$	$26951_{-1}$	$27184_{-1}$	$27416_{-1}$	$27646_{-1}$
1.9	27875_1	28103_1	28330_1	$\frac{28556_{-1}}{20750}$	$\frac{28780_{-1}}{20062}$	29003_1	$\frac{29226_{-1}}{21297}$	$\frac{29447_{-1}}{21507}$	29667_1	$\frac{29885_{-1}}{22015}$
$\begin{array}{c c} 2.0 \\ 2.1 \end{array}$	$\begin{vmatrix} 30103_{-1} \\ 32222_{-1} \end{vmatrix}$	$30320_{-1}$	$30535_{-1}$	$30750_{-1}$	$30963_{-1}$	$31175_{-1}$	31387_1	$31597_{-1}$ $33646_{-1}$	$31806_{-1}$	$32015_{-1}$
$\frac{2.1}{2.2}$	$\begin{vmatrix} 32222_{-1} \\ 34242_{-1} \end{vmatrix}$	$32428_{-1}$ $34439_{-1}$	$32634_{-1}$ $34635_{-1}$	$32838_{-1}$ $34830_{-1}$	$33041_{-1}$ $35025_{-1}$	$33244_{-1}$ $35218_{-1}$	$33445_{-1}$ $35411_{-1}$	$35603_{-1}$	$33846_{-1}$ $35793_{-1}$	$34044_{-1}$ $35984_{-1}$
2.3	36173_1	$36361_{-1}$	$36549_{-1}$	$36736_{-1}$	$36922_{-1}$	$37107_{-1}$	$37291_{-1}$	$37475_{-1}$	$37658_{-1}$	$37840_{-1}$
2.4	38021_1	$38202_{-1}$	$38382_{-1}$	$38561_{-1}$	$38739_{-1}$	$38917_{-1}$	$39094_{-1}$	$39270_{-1}$	$39445_{-1}$	$39620_{-1}$
2.5	$39794_{-1}$	$39967_{-1}$	$40140_{-1}$	$40312_{-1}$	$40483_{-1}$	$40654_{-1}$	$40824_{-1}$	$40993_{-1}$	$41162_{-1}$	$41330_{-1}$
2.6	41497_1	$41664_{-1}$	$41830_{-1}$	$41996_{-1}$	$42160_{-1}$	$42325_{-1}$	$42488_{-1}$	$42651_{-1}$	$42813_{-1}$	$42975_{-1}$
2.7	43136_1	$43297_{-1}$	$43457_{-1}$	$43616_{-1}$	$43775_{-1}$	$43933_{-1}$	$44091_{-1}$	$44248_{-1}$	$44404_{-1}$	$44560_{-1}$
2.8	$44716_{-1}$	$44871_{-1}$	$45025_{-1}$	$45179_{-1}$	$45332_{-1}$	$45484_{-1}$	$45637_{-1}$	$45788_{-1}$	$45939_{-1}$	$46090_{-1}$
2.9	$46240_{-1}$	$46389_{-1}$	$46538_{-1}$	$46687_{-1}$	$46835_{-1}$	$46982_{-1}$	$47129_{-1}$	$47276_{-1}$	$47422_{-1}$	$47567_{-1}$
3.0	$47712_{-1}$	$47857_{-1}$	$48001_{-1}$	48144_1	$48287_{-1}$	$48430_{-1}$	$48572_{-1}$	$48714_{-1}$	$48855_{-1}$	$48996_{-1}$
3.1	$49136_{-1}$	$49276_{-1}$	$49415_{-1}$	$49554_{-1}$	$49693_{-1}$	$49831_{-1}$	$49969_{-1}$	$50106_{-1}$	$50243_{-1}$	$50379_{-1}$
3.2	$50515_{-1}$	$50651_{-1}$	$50786_{-1}$	$50920_{-1}$	$51055_{-1}$	$51188_{-1}$	$51322_{-1}$	$51455_{-1}$	$51587_{-1}$	$51720_{-1}$
3.3	$51851_{-1}$	$51983_{-1}$	$52114_{-1}$	$52244_{-1}$	$52375_{-1}$	$52504_{-1}$	$52634_{-1}$	$52763_{-1}$	$52892_{-1}$	$53020_{-1}$
3.4	$53148_{-1}$	$53275_{-1}$	$53403_{-1}$	$53529_{-1}$	$53656_{-1}$	$53782_{-1}$	$53908_{-1}$	$54033_{-1}$	$54158_{-1}$	$54283_{-1}$
3.5	$54407_{-1}$	$54531_{-1}$	$54654_{-1}$	$54777_{-1}$	$54900_{-1}$	$55023_{-1}$	$55145_{-1}$	$55267_{-1}$	$55388_{-1}$	$55509_{-1}$
3.6	$55630_{-1}$	55751 <sub>-1</sub>	$55871_{-1}$	$55991_{-1}$	$56110_{-1}$	$56229_{-1}$	$56348_{-1}$	$56467_{-1}$	$56585_{-1}$	56703 <sub>-1</sub>
3.7	56820_1	56937_1	57054 <sub>-1</sub>	57171 <sub>-1</sub>	$57287_{-1}$	57403_1	57519 <sub>-1</sub>	57634 <sub>-1</sub>	57749 <sub>-1</sub>	57864 <sub>-1</sub>
3.8	57978_1	$58092_{-1}$	$58206_{-1}$	$58320_{-1}$ $59439_{-1}$	58433 <sub>-1</sub>	$58546_{-1}$	$58659_{-1}$	$58771_{-1}$	58883_1	$58995_{-1}$
3.9	$59106_{-1}$ $60206_{-1}$	$\frac{59218_{-1}}{60314_{-1}}$	$\frac{59329_{-1}}{60423_{-1}}$	$\frac{59439_{-1}}{60531_{-1}}$	$\frac{59550_{-1}}{60638_{-1}}$	$\frac{59660_{-1}}{60746_{-1}}$	$\frac{59770_{-1}}{60853_{-1}}$	$\frac{59879_{-1}}{60959_{-1}}$	$\frac{59988_{-1}}{61066_{-1}}$	$\frac{60097_{-1}}{61172_{-1}}$
4.0 4.1	$61278_{-1}$	$61384_{-1}$	$61490_{-1}$	$61595_{-1}$	$61700_{-1}$	$61805_{-1}$	$61909_{-1}$	$62014_{-1}$	$62118_{-1}$	$62221_{-1}$
4.2	$\begin{vmatrix} 61275_{-1} \\ 62325_{-1} \end{vmatrix}$	$62428_{-1}$	$62531_{-1}$	$62634_{-1}$	$62737_{-1}$	$62839_{-1}$	$62941_{-1}$	$63043_{-1}$	$63144_{-1}$	$63246_{-1}$
4.3	63347_1	$63448_{-1}$	$63548_{-1}$	$63649_{-1}$	$63749_{-1}$	$63849_{-1}$	$63949_{-1}$	$64048_{-1}$	$64147_{-1}$	$64246_{-1}$
4.4	$64345_{-1}$	$64444_{-1}$	$64542_{-1}$	$64640_{-1}$	$64738_{-1}$	$64836_{-1}$	$64933_{-1}$	$65031_{-1}$	$65128_{-1}$	$65225_{-1}$
4.5	65321_1	$65418_{-1}$	$65514_{-1}$	$65610_{-1}$	$65706_{-1}$	$65801_{-1}$	$65896_{-1}$	$65992_{-1}$	$66087_{-1}$	$66181_{-1}$
4.6	$66276_{-1}$	$66370_{-1}$	$66464_{-1}$	$66558_{-1}$	$66652_{-1}$	$66745_{-1}$	$66839_{-1}$	$66932_{-1}$	$67025_{-1}$	$67117_{-1}$
4.7	$67210_{-1}$	$67302_{-1}$	$67394_{-1}$	$67486_{-1}$	$67578_{-1}$	$67669_{-1}$	$67761_{-1}$	$67852_{-1}$	$67943_{-1}$	$68034_{-1}$
4.8	68124_1	$68215_{-1}$	$68305_{-1}$	$68395_{-1}$	$68485_{-1}$	$68574_{-1}$	$68664_{-1}$	$68753_{-1}$	$68842_{-1}$	$68931_{-1}$
4.9	$69020_{-1}$	$69108_{-1}$	$69197_{-1}$	$69285_{-1}$	$69373_{-1}$	$69461_{-1}$	$69548_{-1}$	$69636_{-1}$	$69723_{-1}$	$69810_{-1}$
5.0	$69897_{-1}$	$69984_{-1}$	$70070_{-1}$	$70157_{-1}$	$70243_{-1}$	$70329_{-1}$	$70415_{-1}$	$70501_{-1}$	$70586_{-1}$	$70672_{-1}$
5.1	$70757_{-1}$	$70842_{-1}$	$70927_{-1}$	$71012_{-1}$	$71096_{-1}$	$71181_{-1}$	$71265_{-1}$	$71349_{-1}$	$71433_{-1}$	$71517_{-1}$
5.2	$71600_{-1}$	$71684_{-1}$	$71767_{-1}$	$71850_{-1}$	$71933_{-1}$	$72016_{-1}$	$72099_{-1}$	$72181_{-1}$	$72263_{-1}$	$72346_{-1}$
5.3	$72428_{-1}$	$72509_{-1}$	$72591_{-1}$	$72673_{-1}$	$72754_{-1}$	$72835_{-1}$	$72916_{-1}$	$72997_{-1}$	$73078_{-1}$	$73159_{-1}$
5.4	$73239_{-1}$	$73320_{-1}$	$73400_{-1}$	$73480_{-1}$	$73560_{-1}$	$73640_{-1}$	$73719_{-1}$	$73799_{-1}$	$73878_{-1}$	$73957_{-1}$
5.5	$74036_{-1}$	$74115_{-1}$	$74194_{-1}$	$74273_{-1}$	$74351_{-1}$	$74429_{-1}$	$74507_{-1}$	$74586_{-1}$	$74663_{-1}$	$74741_{-1}$

5.6	74819_1	$74896_{-1}$	$74974_{-1}$	$75051_{-1}$	$75128_{-1}$	75205_1	$75282_{-1}$	$75358_{-1}$	$75435_{-1}$	$75511_{-1}$
5.7	75587_1	$75664_{-1}$	$75740_{-1}$	$75815_{-1}$	$75120_{-1}$ $75891_{-1}$	75967_1	$76042_{-1}$	$76118_{-1}$	$76193_{-1}$	$76268_{-1}$
5.8	76343_1	$76418_{-1}$	$76492_{-1}$	$76567_{-1}$	$76641_{-1}$	$76716_{-1}$	$76790_{-1}$	$76864_{-1}$	$76938_{-1}$	$77012_{-1}$
5.9	77085_1	$77159_{-1}$	$77232_{-1}$	$77305_{-1}$	$77379_{-1}$	$77452_{-1}$	$77525_{-1}$	$77597_{-1}$	$77670_{-1}$	$77743_{-1}$
$\frac{6.9}{6.0}$						$78176_{-1}$				
	77815_1	$77887_{-1}$	$77960_{-1}$	$78032_{-1}$	78104 <sub>-1</sub>	_	78247_1	$78319_{-1}$	$78390_{-1}$	$78462_{-1}$
6.1	78533_1	$78604_{-1}$	$78675_{-1}$	$78746_{-1}$	78817 <sub>-1</sub>	78888_1	$78958_{-1}$	$79029_{-1}$	$79099_{-1}$	$79169_{-1}$
6.2	$79239_{-1}$	$79309_{-1}$	$79379_{-1}$	$79449_{-1}$	79518_1	79588_1	79657_1	79727_1	$79796_{-1}$	$79865_{-1}$
6.3	79934_1	80003_1	80072_1	80140_1	$80209_{-1}$	80277_1	$80346_{-1}$	80414_1	80482_1	$80550_{-1}$
6.4	80618_1	$80686_{-1}$	80754_1	80821_1	$80889_{-1}$	80956_1	81023_1	$81090_{-1}$	81158_1	81224_1
6.5	81291_1	81358_1	$81425_{-1}$	$81491_{-1}$	81558_1	81624_1	$81690_{-1}$	81757_1	81823_1	81889_1
6.6	81954_1	$82020_{-1}$	$82086_{-1}$	82151_1	$82217_{-1}$	82282_1	82347_1	82413_1	$82478_{-1}$	$82543_{-1}$
6.7	82607_1	82672_1	82737_1	$82802_{-1}$	$82866_{-1}$	82930_1	$82995_{-1}$	$83059_{-1}$	83123_1	83187_1
6.8	83251_1	83315_1	$83378_{-1}$	83442_1	$83506_{-1}$	83569_1	$83632_{-1}$	$83696_{-1}$	$83759_{-1}$	$83822_{-1}$
6.9	83885_1	83948_1	84011_1	84073_1	84136_1	84198_1	84261_1	84323_1	84386_1	84448_1
7.0	84510_1	$84572_{-1}$	$84634_{-1}$	$84696_{-1}$	$84757_{-1}$	84819_1	$84880_{-1}$	$84942_{-1}$	$85003_{-1}$	$85065_{-1}$
7.1	$85126_{-1}$	$85187_{-1}$	$85248_{-1}$	$85309_{-1}$	$85370_{-1}$	$85431_{-1}$	$85491_{-1}$	$85552_{-1}$	$85612_{-1}$	$85673_{-1}$
7.2	$85733_{-1}$	$85794_{-1}$	$85854_{-1}$	$85914_{-1}$	$85974_{-1}$	$86034_{-1}$	$86094_{-1}$	$86153_{-1}$	$86213_{-1}$	$86273_{-1}$
7.3	$86332_{-1}$	$86392_{-1}$	$86451_{-1}$	$86510_{-1}$	$86570_{-1}$	$86629_{-1}$	$86688_{-1}$	$86747_{-1}$	$86806_{-1}$	$86864_{-1}$
7.4	$86923_{-1}$	$86982_{-1}$	$87040_{-1}$	$87099_{-1}$	$87157_{-1}$	$87216_{-1}$	$87274_{-1}$	$87332_{-1}$	$87390_{-1}$	$87448_{-1}$
7.5	$87506_{-1}$	$87564_{-1}$	$87622_{-1}$	$87679_{-1}$	$87737_{-1}$	$87795_{-1}$	$87852_{-1}$	$87910_{-1}$	$87967_{-1}$	$88024_{-1}$
7.6	88081_1	$88138_{-1}$	$88195_{-1}$	$88252_{-1}$	$88309_{-1}$	$88366_{-1}$	$88423_{-1}$	$88480_{-1}$	$88536_{-1}$	$88593_{-1}$
7.7	$88649_{-1}$	$88705_{-1}$	$88762_{-1}$	$88818_{-1}$	$88874_{-1}$	$88930_{-1}$	$88986_{-1}$	$89042_{-1}$	$89098_{-1}$	$89154_{-1}$
7.8	$89209_{-1}$	$89265_{-1}$	$89321_{-1}$	$89376_{-1}$	$89432_{-1}$	$89487_{-1}$	$89542_{-1}$	$89597_{-1}$	$89653_{-1}$	$89708_{-1}$
7.9	$89763_{-1}$	$89818_{-1}$	$89873_{-1}$	$89927_{-1}$	$89982_{-1}$	$90037_{-1}$	$90091_{-1}$	$90146_{-1}$	$90200_{-1}$	$90255_{-1}$
8.0	$90309_{-1}$	$90363_{-1}$	$90417_{-1}$	$90472_{-1}$	$90526_{-1}$	$90580_{-1}$	$90634_{-1}$	$90687_{-1}$	$90741_{-1}$	$90795_{-1}$
8.1	$90849_{-1}$	$90902_{-1}$	$90956_{-1}$	$91009_{-1}$	$91062_{-1}$	$91116_{-1}$	$91169_{-1}$	$91222_{-1}$	$91275_{-1}$	$91328_{-1}$
8.2	$91381_{-1}$	$91434_{-1}$	$91487_{-1}$	$91540_{-1}$	$91593_{-1}$	$91645_{-1}$	$91698_{-1}$	$91751_{-1}$	$91803_{-1}$	$91855_{-1}$
8.3	$91908_{-1}$	$91960_{-1}$	$92012_{-1}$	$92065_{-1}$	$92117_{-1}$	$92169_{-1}$	$92221_{-1}$	$92273_{-1}$	$92324_{-1}$	$92376_{-1}$
8.4	$92428_{-1}$	$92480_{-1}$	$92531_{-1}$	$92583_{-1}$	$92634_{-1}$	$92686_{-1}$	$92737_{-1}$	$92788_{-1}$	$92840_{-1}$	$92891_{-1}$
8.5	$92942_{-1}$	$92993_{-1}$	$93044_{-1}$	$93095_{-1}$	$93146_{-1}$	$93197_{-1}$	$93247_{-1}$	$93298_{-1}$	$93349_{-1}$	$93399_{-1}$
8.6	$93450_{-1}$	$93500_{-1}$	$93551_{-1}$	$93601_{-1}$	$93651_{-1}$	$93702_{-1}$	$93752_{-1}$	$93802_{-1}$	$93852_{-1}$	$93902_{-1}$
8.7	$93952_{-1}$	$94002_{-1}$	$94052_{-1}$	$94101_{-1}$	$94151_{-1}$	$94201_{-1}$	$94250_{-1}$	$94300_{-1}$	$94349_{-1}$	$94399_{-1}$
8.8	$94448_{-1}$	$94498_{-1}$	$94547_{-1}$	$94596_{-1}$	$94645_{-1}$	$94694_{-1}$	$94743_{-1}$	$94792_{-1}$	$94841_{-1}$	$94890_{-1}$
8.9	$94939_{-1}$	$94988_{-1}$	$95036_{-1}$	$95085_{-1}$	$95134_{-1}$	$95182_{-1}$	$95231_{-1}$	$95279_{-1}$	$95328_{-1}$	$95376_{-1}$
9.0	$95424_{-1}$	$95472_{-1}$	$95521_{-1}$	$95569_{-1}$	$95617_{-1}$	$95665_{-1}$	$95713_{-1}$	$95761_{-1}$	$95809_{-1}$	$95856_{-1}$
9.1	$95904_{-1}$	$95952_{-1}$	$95999_{-1}$	$96047_{-1}$	$96095_{-1}$	$96142_{-1}$	$96190_{-1}$	$96237_{-1}$	$96284_{-1}$	$96332_{-1}$
9.2	$96379_{-1}$	$96426_{-1}$	$96473_{-1}$	$96520_{-1}$	$96567_{-1}$	$96614_{-1}$	$96661_{-1}$	$96708_{-1}$	$96755_{-1}$	$96802_{-1}$
9.3	96848_1	$96895_{-1}$	$96942_{-1}$	$96988_{-1}$	$97035_{-1}$	$97081_{-1}$	$97128_{-1}$	$97174_{-1}$	$97220_{-1}$	$97267_{-1}$
9.4	97313_1	$97359_{-1}$	$97405_{-1}$	$97451_{-1}$	$97497_{-1}$	$97543_{-1}$	$97589_{-1}$	$97635_{-1}$	$97681_{-1}$	$97727_{-1}$
9.5	$97772_{-1}$	$97818_{-1}$	$97864_{-1}$	$97909_{-1}$	$97955_{-1}$	$98000_{-1}$	$98046_{-1}$	$98091_{-1}$	$98137_{-1}$	$98182_{-1}$
9.6	$98227_{-1}$	$98272_{-1}$	$98318_{-1}$	$98363_{-1}$	$98408_{-1}$	$98453_{-1}$	$98498_{-1}$	$98543_{-1}$	$98588_{-1}$	$98632_{-1}$
9.7	$98677_{-1}$	$98722_{-1}$	$98767_{-1}$	$98811_{-1}$	$98856_{-1}$	$98900_{-1}$	$98945_{-1}$	$98989_{-1}$	$99034_{-1}$	$99078_{-1}$
9.8	99123_1	$99167_{-1}$	$99211_{-1}$	$99255_{-1}$	$99300_{-1}$	99344_1	$99388_{-1}$	$99432_{-1}$	$99476_{-1}$	$99520_{-1}$
9.9	99564_1	$99607_{-1}$	$99651_{-1}$	$99695_{-1}$	$99739_{-1}$	$99782_{-1}$	$99826_{-1}$	$99870_{-1}$	$99913_{-1}$	$99957_{-1}$
	1	1	1			1	1		1	

- $\lg e = 0.43429448190325182765$
- $|\Delta x| \gg 0$ 일 때,

$$\lg(x + \Delta x) = \lg(x) + \lg e \sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{n} \left(\frac{\Delta x}{x}\right)^n$$

 $|\Delta x| \leq 0.01$  이면 일차 테일러 급수로 근사하면 최대 오차율은 0.0050336 이고,  $x \geq 3.02$  이면 최대 오차율은 0.0000049860 이다.

이차 테일러 다항식으로 근사하면 최대 오차율은 -0.000033418이고,  $x \ge 1.07$ 이면 최대 오차율은 0.0000047027이다. 삼차 테일러 다항식으로 근사하면 최대 오차율은 -0.00000025075로 유효숫자 5개를 구하는 데에는 충분하다. 재무용 계산기를 사용해 이 3차 테일러 다항식의 값을 계산한다면 다음과 같은 식으로 계산하라:

$$\lg(x + \Delta x) = \left( \left( \frac{2}{3} \times \frac{\Delta x}{x} - 1 \right) \times \frac{1}{2} \times \frac{\Delta x}{x} + 1 \right) \times \frac{\Delta x}{x} \times \lg e + \lg x$$

•  $|\Delta x| \gg 0$ 일 때,

$$10^{x+\Delta x} = 10^x \sum_{n=0}^{\infty} \frac{1}{n!} \left(\frac{\Delta x}{\lg e}\right)^n$$

해당 로그표를 사용하여 지수를 계산할 때 값을 보정하는 용도로 사용한다면 유효숫자 5개를 구하는 데에는 2차 테일러 다항식만으로도 구할 수 있다.

특히  $|\Delta x| \le 0.0013$  이면 1차 테일러 다항식만으로도 충분히 정확한 값을 계산할 수 있다.

재무용 계산기를 사용해 2차 테일러 다항식의 값을 계산한다면 다음과 같이 계산하라:

$$10^{x+\Delta x} = \left( \left( 0.5 \times \frac{\Delta x}{\lg e} + 1 \right) \times \frac{\Delta x}{\lg e} + 1 \right) \times 10^x$$

## 사인 함수표 $*x \mapsto \sin(\frac{\pi}{2}x)$ 의표

					\ 2	, .				
z	0	1	2	3	4	5	6	7	8	9
0.00	0_	$15708_{-3}$	$31416_{-3}$	47124_3	$62831_{-3}$	78539_3	94246_3	10995_2	$12566_{-2}$	$14137_{-2}$
0.10	$15707_{-2}$	$17278_{-2}$	$18848_{-2}$	$20419_{-2}$	$21989_{-2}$	$23560_{-2}$	$25130_{-2}$	$26700_{-2}$	$28271_{-2}$	$29841_{-2}$
0.20	31411_2	$32981_{-2}$	$34551_{-2}$	$36120_{-2}$	$37690_{-2}$	$39260_{-2}$	$40829_{-2}$	$42399_{-2}$	$43968_{-2}$	$45537_{-2}$
0.30	$47106_{-2}$	$48675_{-2}$	$50244_{-2}$	$51813_{-2}$	$53382_{-2}$	$54950_{-2}$	$56519_{-2}$	$58087_{-2}$	$59655_{-2}$	$61223_{-2}$
0.40	$62791_{-2}$	$64358_{-2}$	$65926_{-2}$	$67493_{-2}$	$69060_{-2}$	$70627_{-2}$	$72194_{-2}$	$73760_{-2}$	$75327_{-2}$	$76893_{-2}$
0.50	$78459_{-2}$	$80025_{-2}$	$81591_{-2}$	$83156_{-2}$	$84721_{-2}$	$86286_{-2}$	$87851_{-2}$	$89416_{-2}$	$90980_{-2}$	$92544_{-2}$
0.60	94108_2	$95672_{-2}$	$97235_{-2}$	$98799_{-2}$	$10036_{-1}$	$10192_{-1}$	$10349_{-1}$	$10505_{-1}$	$10661_{-1}$	$10817_{-1}$
0.70	$10973_{-1}$	$11130_{-1}$	$11286_{-1}$	$11442_{-1}$	$11598_{-1}$	$11754_{-1}$	$11910_{-1}$	$12066_{-1}$	$12222_{-1}$	$12377_{-1}$
0.80	$12533_{-1}$	$12689_{-1}$	$12845_{-1}$	$13001_{-1}$	$13156_{-1}$	$13312_{-1}$	$13468_{-1}$	$13623_{-1}$	$13779_{-1}$	$13935_{-1}$
0.90	$14090_{-1}$	$14246_{-1}$	$14401_{-1}$	$14557_{-1}$	$14712_{-1}$	$14867_{-1}$	$15023_{-1}$	$15178_{-1}$	$15333_{-1}$	$15488_{-1}$
0.10	$15643_{-1}$	$15799_{-1}$	$15954_{-1}$	$16109_{-1}$	$16264_{-1}$	$16419_{-1}$	$16574_{-1}$	$16728_{-1}$	$16883_{-1}$	$17038_{-1}$
0.11	$17193_{-1}$	$17348_{-1}$	$17502_{-1}$	$17657_{-1}$	$17812_{-1}$	$17966_{-1}$	$18121_{-1}$	$18275_{-1}$	$18429_{-1}$	$18584_{-1}$
0.12	$18738_{-1}$	$18892_{-1}$	$19047_{-1}$	$19201_{-1}$	$19355_{-1}$	$19509_{-1}$	$19663_{-1}$	$19817_{-1}$	$19971_{-1}$	$20125_{-1}$
0.13	$20279_{-1}$	$20433_{-1}$	$20586_{-1}$	$20740_{-1}$	$20894_{-1}$	$21047_{-1}$	$21201_{-1}$	$21354_{-1}$	$21508_{-1}$	$21661_{-1}$
0.14	$21814_{-1}$	$21968_{-1}$	$22121_{-1}$	$22274_{-1}$	$22427_{-1}$	$22580_{-1}$	$22733_{-1}$	$22886_{-1}$	$23039_{-1}$	$23192_{-1}$
0.15	$23345_{-1}$	$23497_{-1}$	$23650_{-1}$	$23802_{-1}$	$23955_{-1}$	$24108_{-1}$	$24260_{-1}$	$24412_{-1}$	$24565_{-1}$	$24717_{-1}$
0.16	$24869_{-1}$	$25021_{-1}$	$25173_{-1}$	$25325_{-1}$	$25477_{-1}$	$25629_{-1}$	$25781_{-1}$	$25932_{-1}$	$26084_{-1}$	$26236_{-1}$
0.17	$26387_{-1}$	$26539_{-1}$	$26690_{-1}$	$26842_{-1}$	$26993_{-1}$	$27144_{-1}$	$27295_{-1}$	$27446_{-1}$	$27597_{-1}$	$27748_{-1}$
0.18	$27899_{-1}$	$28050_{-1}$	$28201_{-1}$	$28351_{-1}$	$28502_{-1}$	$28652_{-1}$	$28803_{-1}$	$28953_{-1}$	$29104_{-1}$	$29254_{-1}$
0.19	$29404_{-1}$	$29554_{-1}$	$29704_{-1}$	$29854_{-1}$	$30004_{-1}$	$30154_{-1}$	$30304_{-1}$	$30453_{-1}$	$30603_{-1}$	$30752_{-1}$
0.20	$30902_{-1}$	$31051_{-1}$	$31200_{-1}$	$31350_{-1}$	$31499_{-1}$	$31648_{-1}$	$31797_{-1}$	$31946_{-1}$	$32094_{-1}$	$32243_{-1}$
0.21	$32392_{-1}$	$32540_{-1}$	$32689_{-1}$	$32837_{-1}$	$32986_{-1}$	$33134_{-1}$	$33282_{-1}$	$33430_{-1}$	$33578_{-1}$	$33726_{-1}$
0.22	$33874_{-1}$	$34022_{-1}$	$34169_{-1}$	$34317_{-1}$	$34464_{-1}$	$34612_{-1}$	$34759_{-1}$	$34906_{-1}$	$35053_{-1}$	$35201_{-1}$
0.23	$35347_{-1}$	$35494_{-1}$	$35641_{-1}$	$35788_{-1}$	$35935_{-1}$	$36081_{-1}$	$36228_{-1}$	$36374_{-1}$	$36520_{-1}$	$36666_{-1}$
0.24	$36812_{-1}$	$36958_{-1}$	$37104_{-1}$	$37250_{-1}$	$37396_{-1}$	$37542_{-1}$	$37687_{-1}$	$37833_{-1}$	$37978_{-1}$	$38123_{-1}$
0.25	38268_1	$38413_{-1}$	$38558_{-1}$	$38703_{-1}$	$38848_{-1}$	38993_1	$39137_{-1}$	$39282_{-1}$	$39426_{-1}$	$39571_{-1}$
0.26	$39715_{-1}$	$39859_{-1}$	$40003_{-1}$	$40147_{-1}$	$40291_{-1}$	$40434_{-1}$	$40578_{-1}$	$40721_{-1}$	$40865_{-1}$	$41008_{-1}$
0.27	41151_1	$41295_{-1}$	$41438_{-1}$	$41580_{-1}$	$41723_{-1}$	$41866_{-1}$	$42009_{-1}$	$42151_{-1}$	$42293_{-1}$	$42436_{-1}$
0.28	$42578_{-1}$	$42720_{-1}$	$42862_{-1}$	$43004_{-1}$	$43146_{-1}$	$43287_{-1}$	$43429_{-1}$	$43570_{-1}$	$43712_{-1}$	$43853_{-1}$
0.29	43994_1	44135_1	44276_1	44417_1	44557_1	44698_1	44838_1	44979_1	45119_1	$\frac{45259_{-1}}{}$
0.30	45399_1	$45539_{-1}$	$45679_{-1}$	$45818_{-1}$	$45958_{-1}$	46097_1	$46237_{-1}$	$46376_{-1}$	$46515_{-1}$	$46654_{-1}$
0.31	46793_1	$46932_{-1}$	$47070_{-1}$	$47209_{-1}$	47347_1	47486_1	$47624_{-1}$	$47762_{-1}$	$47900_{-1}$	$48038_{-1}$
0.32	48175_1	48313_1	$48450_{-1}$	48588_1	$48725_{-1}$	48862_1	$48999_{-1}$	$49136_{-1}$	$49273_{-1}$	$49409_{-1}$
0.33	49546_1	$49682_{-1}$	$49819_{-1}$	$49955_{-1}$	$50091_{-1}$	50227_1	$50362_{-1}$	$50498_{-1}$	50633_1	$50769_{-1}$
0.34	50904_1	51039_1	51174_1	51309_1	51444_1	51579_1	51713_1	$51847_{-1}$	$51982_{-1}$	$52116_{-1}$
0.35	52250_1	52384_1	$52517_{-1}$	$52651_{-1}$	$52785_{-1}$	52918_1	53051 <sub>-1</sub>	53184_1	53317_1	$53450_{-1}$
0.36	53583_1	53715_1	53848_1	53980 <sub>-1</sub>	54112_1	54244_1	54376 <sub>-1</sub>	54508_1	54639_1	54771 <sub>-1</sub>
0.37	54902_1	55034_1	55165_1	55296 <sub>-1</sub>	55426 <sub>-1</sub>	55557_1	55688_1	55818 <sub>-1</sub>	55948 <sub>-1</sub>	$56078_{-1}$
0.38	56208_1	56338 <sub>-1</sub>	56468 <sub>-1</sub>	56597_1	$56727_{-1}$	56856_1	56985 <sub>-1</sub>	57114 <sub>-1</sub>	57243 <sub>-1</sub>	57372 <sub>-1</sub>
$\frac{0.39}{0.40}$	57501 <sub>-1</sub>	57629_1	$\frac{57757_{-1}}{50032}$	$\frac{57885_{-1}}{50150}$	50286	58141_1	58269 <sub>-1</sub>	58397 <sub>-1</sub>	58524_1	58651 <sub>-1</sub>
0.40	58779_1	$58906_{-1}$	$59032_{-1}$	$59159_{-1}$	$59286_{-1}$	59412 <sub>-1</sub>	$59538_{-1}$	$59665_{-1}$	$59790_{-1}$	$59916_{-1}$
$0.41 \\ 0.42$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$60168_{-1}$	$60293_{-1}$	$60418_{-1}$	$60543_{-1}$	61000	$60793_{-1}$	$60918_{-1}$	$61042_{-1}$	$61167_{-1}$
0.42	$\begin{vmatrix} 61291_{-1} \\ 62524_{-1} \end{vmatrix}$	$61415_{-1}$ $62647$	$61539_{-1}$ $62769_{-1}$	$61662_{-1}$ $62891_{-1}$	$61786_{-1}$ $63013_{-1}$	$61909_{-1}$ $63135_{-1}$	$62033_{-1}$ $63257_{-1}$	$62156_{-1}$ $63379_{-1}$	$62279_{-1}$ $63500_{-1}$	$62402_{-1}$ $63621_{-1}$
0.43	$\begin{vmatrix} 62524_{-1} \\ 63742_{-1} \end{vmatrix}$	$62647_{-1}$ $63863_{-1}$	$63984_{-1}$	$62891_{-1}$ $64105_{-1}$	$64225_{-1}$	$64346_{-1}$	$63257_{-1}$ $64466_{-1}$	$64586_{-1}$	$64706_{-1}$	$64825_{-1}$
0.44 $0.45$	$\begin{vmatrix} 63742_{-1} \\ 64945_{-1} \end{vmatrix}$	$65064_{-1}$	$65183_{-1}$	$65302_{-1}$	$65421_{-1}$	$65540_{-1}$	$65659_{-1}$	$65777_{-1}$	$65895_{-1}$	$66013_{-1}$
0.40	04340-1	00004_1	00100-1	00004_1	00441_1	00040-1	00008-1	00111_1	000001_1	00019-1

0.46	$66131_{-1}$	$66249_{-1}$	$66367_{-1}$	$66484_{-1}$	$66601_{-1}$	$66718_{-1}$	$66835_{-1}$	$66952_{-1}$	$67069_{-1}$	$67185_{-1}$
0.47	$67301_{-1}$	$67417_{-1}$	$67533_{-1}$	$67649_{-1}$	$67765_{-1}$	$67880_{-1}$	$67995_{-1}$	$68110_{-1}$	$68225_{-1}$	$68340_{-1}$
0.48	$68455_{-1}$	$68569_{-1}$	$68683_{-1}$	$68797_{-1}$	$68911_{-1}$	$69025_{-1}$	$69139_{-1}$	$69252_{-1}$	$69365_{-1}$	$69478_{-1}$
0.49	$69591_{-1}$	$69704_{-1}$	$69817_{-1}$	$69929_{-1}$	$70041_{-1}$	$70153_{-1}$	$70265_{-1}$	$70377_{-1}$	$70488_{-1}$	$70600_{-1}$
0.50	70711_1	$70822_{-1}$	$70932_{-1}$	$71043_{-1}$	$71154_{-1}$	$71264_{-1}$	$71374_{-1}$	$71484_{-1}$	$71594_{-1}$	$71703_{-1}$
0.51	71813_1	$71922_{-1}$	$72031_{-1}$	$72140_{-1}$	$72248_{-1}$	$72357_{-1}$	$72465_{-1}$	$72573_{-1}$	$72681_{-1}$	$72789_{-1}$
0.52	$72897_{-1}$	$73004_{-1}$	$73112_{-1}$	$73219_{-1}$	$73326_{-1}$	$73432_{-1}$	$73539_{-1}$	$73645_{-1}$	$73751_{-1}$	$73857_{-1}$
0.53	$73963_{-1}$	$74069_{-1}$	$74174_{-1}$	$74279_{-1}$	$74385_{-1}$	$74489_{-1}$	$74594_{-1}$	$74699_{-1}$	$74803_{-1}$	$74907_{-1}$
0.54	75011_1	$75115_{-1}$	$75218_{-1}$	$75322_{-1}$	$75425_{-1}$	$75528_{-1}$	$75631_{-1}$	$75734_{-1}$	$75836_{-1}$	$75938_{-1}$
0.55	76041_1	$76143_{-1}$	$76244_{-1}$	$76346_{-1}$	$76447_{-1}$	$76548_{-1}$	$76649_{-1}$	$76750_{-1}$	$76851_{-1}$	$76951_{-1}$
0.56	$77051_{-1}$	$77151_{-1}$	$77251_{-1}$	$77351_{-1}$	$77450_{-1}$	$77550_{-1}$	$77649_{-1}$	$77748_{-1}$	$77846_{-1}$	$77945_{-1}$
0.57	78043_1	$78141_{-1}$	$78239_{-1}$	$78337_{-1}$	$78434_{-1}$	$78532_{-1}$	$78629_{-1}$	$78726_{-1}$	$78823_{-1}$	$78919_{-1}$
0.58	79016_1	$79112_{-1}$	$79208_{-1}$	$79303_{-1}$	$79399_{-1}$	$79494_{-1}$	$79590_{-1}$	$79685_{-1}$	$79779_{-1}$	$79874_{-1}$
0.59	79968_1	$80063_{-1}$	$80157_{-1}$	$80251_{-1}$	$80344_{-1}$	80438_1	$80531_{-1}$	$80624_{-1}$	$80717_{-1}$	$80809_{-1}$
0.60	80902_1	80994_1	81086_1	81178_1	$81269_{-1}$	81361_1	$81452_{-1}$	81543_1	81634_1	$81725_{-1}$
0.61	81815_1	$81905_{-1}$	$81995_{-1}$	$82085_{-1}$	$82175_{-1}$	$82264_{-1}$	$82353_{-1}$	$82442_{-1}$	$82531_{-1}$	$82620_{-1}$
0.62	$82708_{-1}$	$82796_{-1}$	$82884_{-1}$	$82972_{-1}$	$83060_{-1}$	$83147_{-1}$	$83234_{-1}$	$83321_{-1}$	$83408_{-1}$	$83494_{-1}$
0.63	83581_1	$83667_{-1}$	$83753_{-1}$	$83839_{-1}$	$83924_{-1}$	$84009_{-1}$	$84094_{-1}$	$84179_{-1}$	$84264_{-1}$	$84349_{-1}$
0.64	84433_1	$84517_{-1}$	$84601_{-1}$	$84684_{-1}$	$84768_{-1}$	84851_1	$84934_{-1}$	$85017_{-1}$	$85099_{-1}$	$85182_{-1}$
0.65	$85264_{-1}$	$85346_{-1}$	$85428_{-1}$	$85509_{-1}$	$85591_{-1}$	$85672_{-1}$	$85753_{-1}$	$85833_{-1}$	$85914_{-1}$	$85994_{-1}$
0.66	86074_1	$86154_{-1}$	$86234_{-1}$	$86313_{-1}$	$86392_{-1}$	$86471_{-1}$	$86550_{-1}$	$86629_{-1}$	$86707_{-1}$	$86785_{-1}$
0.67	86863_1	$86941_{-1}$	$87018_{-1}$	$87096_{-1}$	$87173_{-1}$	$87250_{-1}$	$87326_{-1}$	$87403_{-1}$	$87479_{-1}$	$87555_{-1}$
0.68	87631_1	$87706_{-1}$	$87782_{-1}$	$87857_{-1}$	$87932_{-1}$	$88006_{-1}$	$88081_{-1}$	$88155_{-1}$	$88229_{-1}$	$88303_{-1}$
0.69	88377_1	$88450_{-1}$	$88523_{-1}$	$88596_{-1}$	$88669_{-1}$	$88741_{-1}$	$88814_{-1}$	$88886_{-1}$	$88958_{-1}$	$89029_{-1}$
0.70	89101_1	$89172_{-1}$	89243_1	89314_1	$89384_{-1}$	89454_1	$89525_{-1}$	$89594_{-1}$	89664_1	$89734_{-1}$
0.71	89803_1	$89872_{-1}$	$89941_{-1}$	$90009_{-1}$	$90077_{-1}$	$90146_{-1}$	$90213_{-1}$	$90281_{-1}$	$90348_{-1}$	$90416_{-1}$
0.72	$90483_{-1}$	$90549_{-1}$	$90616_{-1}$	$90682_{-1}$	$90748_{-1}$	$90814_{-1}$	$90880_{-1}$	$90945_{-1}$	$91011_{-1}$	$91076_{-1}$
0.73	$91140_{-1}$	$91205_{-1}$	$91269_{-1}$	$91333_{-1}$	$91397_{-1}$	$91461_{-1}$	$91524_{-1}$	$91587_{-1}$	$91650_{-1}$	$91713_{-1}$
0.74	$91775_{-1}$	$91838_{-1}$	$91900_{-1}$	$91962_{-1}$	$92023_{-1}$	$92085_{-1}$	$92146_{-1}$	$92207_{-1}$	$92267_{-1}$	$92328_{-1}$
0.75	$92388_{-1}$	$92448_{-1}$	$92508_{-1}$	$92567_{-1}$	$92627_{-1}$	$92686_{-1}$	$92745_{-1}$	$92803_{-1}$	$92862_{-1}$	$92920_{-1}$
0.76	$92978_{-1}$	$93035_{-1}$	$93093_{-1}$	$93150_{-1}$	$93207_{-1}$	$93264_{-1}$	$93320_{-1}$	$93377_{-1}$	$93433_{-1}$	$93489_{-1}$
0.77	$93544_{-1}$	$93600_{-1}$	$93655_{-1}$	$93710_{-1}$	$93765_{-1}$	$93819_{-1}$	$93873_{-1}$	$93927_{-1}$	$93981_{-1}$	$94035_{-1}$
0.78	$94088_{-1}$	$94141_{-1}$	$94194_{-1}$	$94247_{-1}$	$94299_{-1}$	$94351_{-1}$	$94403_{-1}$	$94455_{-1}$	$94506_{-1}$	$94558_{-1}$
0.79	$94609_{-1}$	$94659_{-1}$	$94710_{-1}$	$94760_{-1}$	$94810_{-1}$	$94860_{-1}$	$94910_{-1}$	$94959_{-1}$	$95008_{-1}$	$95057_{-1}$
0.80	$95106_{-1}$	$95154_{-1}$	$95202_{-1}$	$95250_{-1}$	$95298_{-1}$	$95345_{-1}$	$95393_{-1}$	$95440_{-1}$	$95486_{-1}$	$95533_{-1}$
0.81	$95579_{-1}$	$95625_{-1}$	$95671_{-1}$	$95717_{-1}$	$95762_{-1}$	$95807_{-1}$	$95852_{-1}$	$95897_{-1}$	$95941_{-1}$	$95985_{-1}$
0.82	$96029_{-1}$	$96073_{-1}$	$96117_{-1}$	$96160_{-1}$	$96203_{-1}$	$96246_{-1}$	$96288_{-1}$	$96330_{-1}$	$96372_{-1}$	$96414_{-1}$
0.83	$96456_{-1}$	$96497_{-1}$	$96538_{-1}$	$96579_{-1}$	$96620_{-1}$	$96660_{-1}$	$96700_{-1}$	$96740_{-1}$	$96780_{-1}$	$96819_{-1}$
0.84	$96858_{-1}$	$96897_{-1}$	$96936_{-1}$	$96974_{-1}$	$97013_{-1}$	$97051_{-1}$	$97088_{-1}$	$97126_{-1}$	$97163_{-1}$	$97200_{-1}$
0.85	$97237_{-1}$	$97274_{-1}$	$97310_{-1}$	$97346_{-1}$	$97382_{-1}$	$97417_{-1}$	$97453_{-1}$	$97488_{-1}$	$97523_{-1}$	$97557_{-1}$
0.86	$97592_{-1}$	$97626_{-1}$	$97660_{-1}$	$97693_{-1}$	$97727_{-1}$	$97760_{-1}$	$97793_{-1}$	$97826_{-1}$	$97858_{-1}$	$97890_{-1}$
0.87	$97922_{-1}$	$97954_{-1}$	$97986_{-1}$	$98017_{-1}$	$98048_{-1}$	$98079_{-1}$	$98109_{-1}$	$98139_{-1}$	$98169_{-1}$	$98199_{-1}$
0.88	$98229_{-1}$	$98258_{-1}$	$98287_{-1}$	$98316_{-1}$	$98345_{-1}$	$98373_{-1}$	$98401_{-1}$	$98429_{-1}$	$98456_{-1}$	$98484_{-1}$
0.89	98511_1	$98538_{-1}$	$98564_{-1}$	$98591_{-1}$	$98617_{-1}$	$98643_{-1}$	$98669_{-1}$	$98694_{-1}$	$98719_{-1}$	$98744_{-1}$
0.90	$98769_{-1}$	$98793_{-1}$	$98817_{-1}$	$98841_{-1}$	$98865_{-1}$	$98889_{-1}$	$98912_{-1}$	$98935_{-1}$	$98958_{-1}$	$98980_{-1}$
0.91	$99002_{-1}$	$99024_{-1}$	$99046_{-1}$	$99068_{-1}$	$99089_{-1}$	$99110_{-1}$	$99131_{-1}$	$99151_{-1}$	$99172_{-1}$	$99192_{-1}$
0.92	99211_1	$99231_{-1}$	$99250_{-1}$	$99269_{-1}$	$99288_{-1}$	$99307_{-1}$	$99325_{-1}$	$99343_{-1}$	$99361_{-1}$	$99379_{-1}$
0.93	$99396_{-1}$	$99413_{-1}$	$99430_{-1}$	$99447_{-1}$	$99463_{-1}$	$99479_{-1}$	$99495_{-1}$	$99511_{-1}$	$99526_{-1}$	$99541_{-1}$
0.94	$99556_{-1}$	$99571_{-1}$	$99585_{-1}$	$99599_{-1}$	$99613_{-1}$	$99627_{-1}$	$99640_{-1}$	$99654_{-1}$	$99667_{-1}$	$99679_{-1}$
0.95	$99692_{-1}$	$99704_{-1}$	$99716_{-1}$	$99728_{-1}$	$99739_{-1}$	$99750_{-1}$	$99761_{-1}$	$99772_{-1}$	$99782_{-1}$	$99793_{-1}$

0.96	99803_1	$99812_{-1}$	$99822_{-1}$	$99831_{-1}$	$99840_{-1}$	$99849_{-1}$	$99857_{-1}$	$99866_{-1}$	$99874_{-1}$	$99881_{-1}$
0.97	99889_1	$99896_{-1}$	$99903_{-1}$	$99910_{-1}$	$99917_{-1}$	$99923_{-1}$	$99929_{-1}$	$99935_{-1}$	$99940_{-1}$	$99946_{-1}$
0.98	$99951_{-1}$	$99955_{-1}$	$99960_{-1}$	$99964_{-1}$	$99968_{-1}$	$99972_{-1}$	$99976_{-1}$	$99979_{-1}$	$99982_{-1}$	$99985_{-1}$
0.99	99988_1	$99990_{-1}$	$99992_{-1}$	$99994_{-1}$	$99996_{-1}$	$99997_{-1}$	$99998_{-1}$	$99999_{-1}$	$10000_{+0}$	$10000_{+0}$

#### 추가 함숫값

•  $\Delta x \gg 0$ 일 때,

$$\sin\left(\frac{\pi}{2}\left(x+\Delta x\right)\right) \approx \sin\left(\frac{\pi}{2}x\right) + \frac{\pi}{2}\sqrt{1-\sin^2\left(\frac{\pi}{2}x\right)}\Delta x$$

 $\Delta x \leq 0.0005$ 일 때, 최대 0.00003% 오차를 가진다.

정규분포표 \*  $Z \sim N\left(0,\,1^2\right)$ 일때  $P\left(0 \leq Z \leq z\right)$ 의 값

			2	3	4	5	6	7	8	9
0.0	0_	39894_3	79783_3	11966_2	$15953_{-2}$	19939_2	$23922_{-2}$	$27903_{-2}$	31881_2	$35856_{-2}$
0.1	$39828_{-2}$	$43795_{-2}$	$47758_{-2}$	$51717_{-2}$	$55670_{-2}$	$59618_{-2}$	$63559_{-2}$	$67495_{-2}$	$71424_{-2}$	$75345_{-2}$
0.2	$79260_{-2}$	$83166_{-2}$	$87064_{-2}$	$90954_{-2}$	$94835_{-2}$	$98706_{-2}$	$10257_{-1}$	$10642_{-1}$	$11026_{-1}$	$11409_{-1}$
0.3	$11791_{-1}$	$12172_{-1}$	$12552_{-1}$	$12930_{-1}$	$13307_{-1}$	$13683_{-1}$	$14058_{-1}$	$14431_{-1}$	$14803_{-1}$	$15173_{-1}$
0.4	$15542_{-1}$	$15910_{-1}$	$16276_{-1}$	$16640_{-1}$	$17003_{-1}$	$17364_{-1}$	$17724_{-1}$	$18082_{-1}$	$18439_{-1}$	$18793_{-1}$
0.5	$19146_{-1}$	$19497_{-1}$	$19847_{-1}$	$20194_{-1}$	$20540_{-1}$	$20884_{-1}$	$21226_{-1}$	$21566_{-1}$	$21904_{-1}$	$22240_{-1}$
0.6	$22575_{-1}$	$22907_{-1}$	$23237_{-1}$	$23565_{-1}$	$23891_{-1}$	$24215_{-1}$	$24537_{-1}$	$24857_{-1}$	$25175_{-1}$	$25490_{-1}$
0.7	$25804_{-1}$	$26115_{-1}$	$26424_{-1}$	$26730_{-1}$	$27035_{-1}$	$27337_{-1}$	$27637_{-1}$	$27935_{-1}$	$28230_{-1}$	$28524_{-1}$
0.8	$28814_{-1}$	$29103_{-1}$	$29389_{-1}$	$29673_{-1}$	$29955_{-1}$	$30234_{-1}$	$30511_{-1}$	$30785_{-1}$	$31057_{-1}$	$31327_{-1}$
0.9	$31594_{-1}$	$31859_{-1}$	$32121_{-1}$	$32381_{-1}$	$32639_{-1}$	$32894_{-1}$	$33147_{-1}$	$33398_{-1}$	$33646_{-1}$	$33891_{-1}$
1.0	$34134_{-1}$	$34375_{-1}$	$34614_{-1}$	$34849_{-1}$	$35083_{-1}$	$35314_{-1}$	$35543_{-1}$	$35769_{-1}$	$35993_{-1}$	$36214_{-1}$
1.1	$36433_{-1}$	$36650_{-1}$	$36864_{-1}$	$37076_{-1}$	$37286_{-1}$	$37493_{-1}$	$37698_{-1}$	$37900_{-1}$	$38100_{-1}$	$38298_{-1}$
1.2	$38493_{-1}$	$38686_{-1}$	$38877_{-1}$	$39065_{-1}$	$39251_{-1}$	$39435_{-1}$	$39617_{-1}$	$39796_{-1}$	$39973_{-1}$	$40147_{-1}$
1.3	$40320_{-1}$	$40490_{-1}$	$40658_{-1}$	$40824_{-1}$	$40988_{-1}$	$41149_{-1}$	$41309_{-1}$	$41466_{-1}$	$41621_{-1}$	$41774_{-1}$
1.4	$41924_{-1}$	$42073_{-1}$	$42220_{-1}$	$42364_{-1}$	$42507_{-1}$	$42647_{-1}$	$42785_{-1}$	$42922_{-1}$	$43056_{-1}$	$43189_{-1}$
1.5	$43319_{-1}$	$43448_{-1}$	$43574_{-1}$	$43699_{-1}$	$43822_{-1}$	$43943_{-1}$	$44062_{-1}$	$44179_{-1}$	$44295_{-1}$	$44408_{-1}$
1.6	$44520_{-1}$	$44630_{-1}$	$44738_{-1}$	$44845_{-1}$	$44950_{-1}$	$45053_{-1}$	$45154_{-1}$	$45254_{-1}$	$45352_{-1}$	$45449_{-1}$
1.7	$45543_{-1}$	$45637_{-1}$	$45728_{-1}$	$45818_{-1}$	$45907_{-1}$	$45994_{-1}$	$46080_{-1}$	$46164_{-1}$	$46246_{-1}$	$46327_{-1}$
1.8	$46407_{-1}$	$46485_{-1}$	$46562_{-1}$	$46638_{-1}$	$46712_{-1}$	$46784_{-1}$	$46856_{-1}$	$46926_{-1}$	$46995_{-1}$	$47062_{-1}$
1.9	$47128_{-1}$	$47193_{-1}$	$47257_{-1}$	$47320_{-1}$	$47381_{-1}$	$47441_{-1}$	$47500_{-1}$	$47558_{-1}$	$47615_{-1}$	$47670_{-1}$
2.0	$47725_{-1}$	$47778_{-1}$	$47831_{-1}$	$47882_{-1}$	$47932_{-1}$	$47982_{-1}$	$48030_{-1}$	$48077_{-1}$	$48124_{-1}$	$48169_{-1}$
2.1	$48214_{-1}$	$48257_{-1}$	$48300_{-1}$	$48341_{-1}$	$48382_{-1}$	$48422_{-1}$	$48461_{-1}$	$48500_{-1}$	$48537_{-1}$	$48574_{-1}$
2.2	$48610_{-1}$	$48645_{-1}$	$48679_{-1}$	$48713_{-1}$	$48745_{-1}$	$48778_{-1}$	$48809_{-1}$	$48840_{-1}$	$48870_{-1}$	$48899_{-1}$
2.3	$48928_{-1}$	$48956_{-1}$	$48983_{-1}$	$49010_{-1}$	$49036_{-1}$	$49061_{-1}$	$49086_{-1}$	$49111_{-1}$	$49134_{-1}$	$49158_{-1}$
2.4	$49180_{-1}$	$49202_{-1}$	$49224_{-1}$	$49245_{-1}$	$49266_{-1}$	$49286_{-1}$	$49305_{-1}$	$49324_{-1}$	$49343_{-1}$	$49361_{-1}$
2.5	$49379_{-1}$	$49396_{-1}$	$49413_{-1}$	$49430_{-1}$	$49446_{-1}$	$49461_{-1}$	$49477_{-1}$	$49492_{-1}$	$49506_{-1}$	$49520_{-1}$
2.6	$49534_{-1}$	$49547_{-1}$	$49560_{-1}$	$49573_{-1}$	$49585_{-1}$	$49598_{-1}$	$49609_{-1}$	$49621_{-1}$	$49632_{-1}$	$49643_{-1}$
2.7	$49653_{-1}$	$49664_{-1}$	$49674_{-1}$	$49683_{-1}$	$49693_{-1}$	$49702_{-1}$	$49711_{-1}$	$49720_{-1}$	$49728_{-1}$	$49736_{-1}$
2.8	$49744_{-1}$	$49752_{-1}$	$49760_{-1}$	$49767_{-1}$	$49774_{-1}$	$49781_{-1}$	$49788_{-1}$	$49795_{-1}$	$49801_{-1}$	$49807_{-1}$
2.9	$49813_{-1}$	$49819_{-1}$	$49825_{-1}$	$49831_{-1}$	$49836_{-1}$	$49841_{-1}$	$49846_{-1}$	$49851_{-1}$	$49856_{-1}$	$49861_{-1}$
3.0	$49865_{-1}$	$49869_{-1}$	$49874_{-1}$	$49878_{-1}$	$49882_{-1}$	$49886_{-1}$	$49889_{-1}$	$49893_{-1}$	$49896_{-1}$	$49900_{-1}$
3.1	$49903_{-1}$	$49906_{-1}$	$49910_{-1}$	$49913_{-1}$	$49916_{-1}$	$49918_{-1}$	$49921_{-1}$	$49924_{-1}$	$49926_{-1}$	$49929_{-1}$
3.2	$49931_{-1}$	$49934_{-1}$	$49936_{-1}$	$49938_{-1}$	$49940_{-1}$	$49942_{-1}$	$49944_{-1}$	$49946_{-1}$	$49948_{-1}$	$49950_{-1}$
3.3	$49952_{-1}$	$49953_{-1}$	$49955_{-1}$	$49957_{-1}$	$49958_{-1}$	$49960_{-1}$	$49961_{-1}$	$49962_{-1}$	$49964_{-1}$	$49965_{-1}$
3.4	$49966_{-1}$	$49968_{-1}$	$49969_{-1}$	$49970_{-1}$	$49971_{-1}$	$49972_{-1}$	$49973_{-1}$	$49974_{-1}$	$49975_{-1}$	$49976_{-1}$
3.5	$49977_{-1}$	$49978_{-1}$	$49978_{-1}$	$49979_{-1}$	$49980_{-1}$	$49981_{-1}$	$49981_{-1}$	$49982_{-1}$	$49983_{-1}$	$49983_{-1}$
3.6	$49984_{-1}$	$49985_{-1}$	$49985_{-1}$	$49986_{-1}$	$49986_{-1}$	$49987_{-1}$	$49987_{-1}$	$49988_{-1}$	$49988_{-1}$	$49989_{-1}$
3.7	$49989_{-1}$	$49990_{-1}$	$49990_{-1}$	$49990_{-1}$	$49991_{-1}$	$49991_{-1}$	$49992_{-1}$	$49992_{-1}$	$49992_{-1}$	$49992_{-1}$
3.8	$49993_{-1}$	$49993_{-1}$	$49993_{-1}$	$49994_{-1}$	$49994_{-1}$	$49994_{-1}$	$49994_{-1}$	$49995_{-1}$	$49995_{-1}$	$49995_{-1}$
3.9	$49995_{-1}$	$49995_{-1}$	$49996_{-1}$	$49996_{-1}$	$49996_{-1}$	$49996_{-1}$	$49996_{-1}$	$49996_{-1}$	$49997_{-1}$	$49997_{-1}$

## 소수의 목록

41         43         5         7         11         13         17         19         23         29         31         37           97         101         103         107         109         113         127         131         137         139         149         151           157         163         167         173         179         181         191         193         197         199         211         223           227         229         233         239         241         251         257         263         269         271         277         281           283         293         307         311         313         317         331         337         347         349         353         359           367         373         379         383         389         397         401         409         419         421         431         433           439         443         449         457         461         463         467         479         487         491         499         503           509         521         523         541         547         557         563												
97         101         103         107         109         113         127         131         137         139         149         123         197         199         211         223         223         223         233         239         241         251         257         263         269         271         277         281           283         293         307         311         313         317         331         337         347         349         353         359           367         373         379         383         389         397         401         409         419         421         431         433           439         443         449         457         461         463         467         479         487         491         499         503           509         601         607         613         617         619         631         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761 <td< td=""><td>2</td><td>3</td><td>5</td><td>7</td><td>11</td><td>13</td><td>17</td><td>19</td><td>23</td><td>29</td><td>31</td><td>37</td></td<>	2	3	5	7	11	13	17	19	23	29	31	37
157         163         167         173         179         181         191         193         197         199         211         223         229         233         239         241         251         257         263         269         271         277         281           283         293         307         311         313         317         331         337         349         353         359           367         373         379         383         389         397         401         409         419         421         431         433           439         443         449         457         461         463         467         479         487         491         499         503           599         601         607         613         617         619         635         591         571         577         587         593           611         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
227         229         233         239         241         251         257         263         269         271         277         281           283         293         307         311         313         317         331         337         349         353         359           367         373         379         383         389         397         401         409         419         421         431         433           439         443         449         457         461         463         467         479         487         491         499         503           599         601         607         613         617         619         631         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877												
283         293         307         311         313         317         331         337         347         349         353         389           367         373         379         383         389         397         401         409         419         421         431         433           439         443         449         457         461         463         467         479         487         491         499         503           599         601         607         613         617         619         631         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           9199         929         937         941         947         953 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>												
367         373         379         383         389         397         401         409         419         421         431         439           439         443         449         457         461         463         467         479         487         491         499         503           509         521         523         541         547         557         563         569         571         577         587         593           599         601         607         613         617         619         611         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           1009         1013         1019         1021         1031         1039												
439         443         449         457         461         463         467         479         487         491         499         503           599         521         523         541         547         557         563         569         571         577         587         593           599         601         607         613         617         619         631         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         977           1009         1013         1019         1021         1033         1033												
509         521         523         541         547         557         563         569         571         577         583         699           599         601         607         613         617         619         631         641         643         647         653         659           661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1039         1049         1051         1061         1063         1069           1087         1091         1093         1201         1213         1217         1223	367	373	379	383	389	397	401	409	419	421	431	433
599         601         607         613         617         619         611         641         643         647         653         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1219         1221         1231         1249         1231 </td <td>439</td> <td>443</td> <td>449</td> <td>457</td> <td>461</td> <td>463</td> <td>467</td> <td>479</td> <td>487</td> <td>491</td> <td>499</td> <td>503</td>	439	443	449	457	461	463	467	479	487	491	499	503
661         673         677         683         691         701         709         719         727         733         739         743           751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1087         1291         1293         1229         1231         1237         1249           1253         1277         1279         1283         1289         1291         1297         1301         1303         13	509	521	523	541	547	557	563	569	571	577	587	593
751         757         761         769         773         787         797         809         811         821         823         827           829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1259         1267         1373         1409	599	601	607	613	617	619	631	641	643	647	653	659
829         839         853         857         859         863         877         881         883         887         907         911           919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1259         1271         1273         1381         1399         1409         1423         1427         1429         1433         1439           1447         1453         1459         1553	661	673	677	683	691	701	709	719	727	733	739	743
919         929         937         941         947         953         967         971         977         983         991         997           1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1327         1361         1367         1373         1381         1399         1409         1423         1429         1433         1439           1447         1451         1453         1451         1481         1483         1487         1489         1493         1499         1511           1523         1531         1513         1553         1559	751	757	761	769	773	787	797	809	811	821	823	827
1009         1013         1019         1021         1031         1033         1039         1049         1051         1061         1063         1069           1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1327         1361         1367         1373         1381         1399         1409         1423         1427         1429         1433         1439           1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609 <t< td=""><td>829</td><td>839</td><td>853</td><td>857</td><td>859</td><td>863</td><td>877</td><td>881</td><td>883</td><td>887</td><td>907</td><td>911</td></t<>	829	839	853	857	859	863	877	881	883	887	907	911
1087         1091         1093         1097         1103         1109         1117         1123         1129         1151         1153         1163           1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1327         1361         1367         1373         1381         1399         1409         1423         1427         1429         1433         1439           1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699 <t< td=""><td>919</td><td>929</td><td>937</td><td>941</td><td>947</td><td>953</td><td>967</td><td>971</td><td>977</td><td>983</td><td>991</td><td>997</td></t<>	919	929	937	941	947	953	967	971	977	983	991	997
1171         1181         1187         1193         1201         1213         1217         1223         1229         1231         1237         1249           1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1327         1361         1367         1373         1381         1399         1409         1423         1427         1429         1433         1439           1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1879         1889 <t< td=""><td>1009</td><td>1013</td><td>1019</td><td>1021</td><td>1031</td><td>1033</td><td>1039</td><td>1049</td><td>1051</td><td>1061</td><td>1063</td><td>1069</td></t<>	1009	1013	1019	1021	1031	1033	1039	1049	1051	1061	1063	1069
1259         1277         1279         1283         1289         1291         1297         1301         1303         1307         1319         1321           1327         1361         1367         1373         1381         1399         1409         1423         1427         1429         1433         1439           1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1899 <t< td=""><td>1087</td><td>1091</td><td>1093</td><td>1097</td><td>1103</td><td>1109</td><td>1117</td><td>1123</td><td>1129</td><td>1151</td><td>1153</td><td>1163</td></t<>	1087	1091	1093	1097	1103	1109	1117	1123	1129	1151	1153	1163
1327         1361         1367         1373         1381         1399         1409         1423         1427         1429         1433         1439           1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997 <t< td=""><td>1171</td><td>1181</td><td>1187</td><td>1193</td><td>1201</td><td>1213</td><td>1217</td><td>1223</td><td>1229</td><td>1231</td><td>1237</td><td>1249</td></t<>	1171	1181	1187	1193	1201	1213	1217	1223	1229	1231	1237	1249
1447         1451         1453         1459         1471         1481         1483         1487         1489         1493         1499         1511           1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083 <t< td=""><td>1259</td><td>1277</td><td>1279</td><td>1283</td><td>1289</td><td>1291</td><td>1297</td><td>1301</td><td>1303</td><td>1307</td><td>1319</td><td>1321</td></t<>	1259	1277	1279	1283	1289	1291	1297	1301	1303	1307	1319	1321
1523         1531         1543         1549         1553         1559         1567         1571         1579         1583         1597         1601           1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083         2087         2089         2111         2113         2123         2131         2137         2141         2143           2153         2281         2287 <t< td=""><td>1327</td><td>1361</td><td>1367</td><td>1373</td><td>1381</td><td>1399</td><td>1409</td><td>1423</td><td>1427</td><td>1429</td><td>1433</td><td>1439</td></t<>	1327	1361	1367	1373	1381	1399	1409	1423	1427	1429	1433	1439
1607         1609         1613         1619         1621         1627         1637         1657         1663         1667         1669         1693           1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083         2087         2089         2099         2111         2113         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281 <t< td=""><td>1447</td><td>1451</td><td>1453</td><td>1459</td><td>1471</td><td>1481</td><td>1483</td><td>1487</td><td>1489</td><td>1493</td><td>1499</td><td>1511</td></t<>	1447	1451	1453	1459	1471	1481	1483	1487	1489	1493	1499	1511
1697         1699         1709         1721         1723         1733         1741         1747         1753         1759         1777         1783           1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083         2087         2089         2011         2113         2129         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2417         2423           2437         2441 <t< td=""><td>1523</td><td>1531</td><td>1543</td><td>1549</td><td>1553</td><td>1559</td><td>1567</td><td>1571</td><td>1579</td><td>1583</td><td>1597</td><td>1601</td></t<>	1523	1531	1543	1549	1553	1559	1567	1571	1579	1583	1597	1601
1787         1789         1801         1811         1823         1831         1847         1861         1867         1871         1873         1877           1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083         2087         2089         2099         2111         2113         2129         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447 <t< td=""><td>1607</td><td>1609</td><td>1613</td><td>1619</td><td>1621</td><td>1627</td><td>1637</td><td>1657</td><td>1663</td><td>1667</td><td>1669</td><td>1693</td></t<>	1607	1609	1613	1619	1621	1627	1637	1657	1663	1667	1669	1693
1879         1889         1901         1907         1913         1931         1933         1949         1951         1973         1979         1987           1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2069           2081         2083         2087         2089         2099         2111         2113         2129         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2377         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551 <t< td=""><td>1697</td><td>1699</td><td>1709</td><td>1721</td><td>1723</td><td>1733</td><td>1741</td><td>1747</td><td>1753</td><td>1759</td><td>1777</td><td>1783</td></t<>	1697	1699	1709	1721	1723	1733	1741	1747	1753	1759	1777	1783
1993         1997         1999         2003         2011         2017         2027         2029         2039         2053         2063         2063           2081         2083         2087         2089         2099         2111         2113         2129         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2377         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663 <t< td=""><td>1787</td><td>1789</td><td>1801</td><td>1811</td><td>1823</td><td>1831</td><td>1847</td><td>1861</td><td>1867</td><td>1871</td><td>1873</td><td>1877</td></t<>	1787	1789	1801	1811	1823	1831	1847	1861	1867	1871	1873	1877
2081         2083         2087         2089         2099         2111         2113         2129         2131         2137         2141         2143           2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2377         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663         2671         2677         2683         2687         2689         2693         2699         2707         2711         2713           2719         2729 <t< td=""><td>1879</td><td>1889</td><td>1901</td><td>1907</td><td>1913</td><td>1931</td><td>1933</td><td>1949</td><td>1951</td><td>1973</td><td>1979</td><td>1987</td></t<>	1879	1889	1901	1907	1913	1931	1933	1949	1951	1973	1979	1987
2153         2161         2179         2203         2207         2213         2221         2237         2239         2243         2251         2267           2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2377         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663         2671         2677         2683         2687         2689         2693         2699         2707         2711         2713           2719         2729         2731         2741         2749         2753         2767         2777         2789         2791         2797         2801	1993	1997	1999	2003	2011	2017	2027	2029	2039	2053	2063	2069
2269         2273         2281         2287         2293         2297         2309         2311         2333         2339         2341         2347           2351         2357         2371         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663         2671         2677         2683         2687         2689         2693         2699         2707         2711         2713           2719         2729         2731         2741         2749         2753         2767         2777         2789         2791         2797         2801	2081	2083	2087	2089	2099	2111	2113	2129	2131	2137	2141	2143
2351         2357         2371         2377         2381         2383         2389         2393         2399         2411         2417         2423           2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663         2671         2677         2683         2687         2689         2693         2699         2707         2711         2713           2719         2729         2731         2741         2749         2753         2767         2777         2789         2791         2797         2801	2153	2161	2179	2203	2207	2213	2221	2237	2239	2243	2251	2267
2437         2441         2447         2459         2467         2473         2477         2503         2521         2531         2539         2543           2549         2551         2557         2579         2591         2593         2609         2617         2621         2633         2647         2657           2659         2663         2671         2683         2687         2689         2693         2699         2707         2711         2713           2719         2729         2731         2741         2749         2753         2767         2777         2789         2791         2797         2801	2269	2273	2281	2287	2293	2297	2309	2311	2333	2339	2341	2347
2549     2551     2557     2579     2591     2593     2609     2617     2621     2633     2647     2657       2659     2663     2671     2677     2683     2687     2689     2693     2699     2707     2711     2713       2719     2729     2731     2741     2749     2753     2767     2777     2789     2791     2797     2801	2351	2357	2371	2377	2381	2383	2389	2393	2399	2411	2417	2423
2659     2663     2671     2677     2683     2687     2689     2693     2699     2707     2711     2713       2719     2729     2731     2741     2749     2753     2767     2777     2789     2791     2797     2801	2437	2441	2447	2459	2467	2473	2477	2503	2521	2531	2539	2543
2719         2729         2731         2741         2749         2753         2767         2777         2789         2791         2797         2801	2549	2551	2557	2579	2591	2593	2609	2617	2621	2633	2647	2657
	2659	2663	2671	2677	2683	2687	2689	2693	2699	2707	2711	2713
<u>2803 2819 2833 2837 2843 2851 2857 2861 2879 2887 2897 2903</u>	2719	2729	2731	2741	2749	2753	2767	2777	2789	2791	2797	2801
	2803	2819	2833	2837	2843	2851	2857	2861	2879	2887	2897	2903