國立高雄大學 103 學年度研究所碩士班招生考試試題

科目：統計學　　系所：金融管理學系　　是否使用計算機：是
考試時間：100 分鐘　　本科原始成績：100 分

## I. Multiple Choice (35%)

1. In order to predict with 98% confidence the expected value of y for a given value of x in a simple linear regression problem, a random sample of 15 observations is taken. Which of the following t-table values listed below would be used?
   (a) 1.350
   (b) 1.771
   (c) 2.160
   (d) 2.650

A problem with a telephone line that prevents a customer from receiving or making calls is disconcerting to both the customer and the telephone company. The data on samples of 20 problems reported to two different offices of a telephone company and the time to clear these problems (in minutes) from the customers' lines are collected. Below is the Excel output to see whether there is evidence of a difference in the mean waiting time between the two offices assuming that the population variances in the two offices are not equal.

**Table 1. t-Test: Two-Sample Assuming Unequal Variances**

| | *Office 1* | *Office 2* |
|---|---|---|
| Mean | 2.214 | 2.0115 |
| Variance | 2.951657 | 3.57855 |
| Observations | 20 | 20 |
| Hypothesized Mean Difference | 0 | |
| df | 38 | |
| t Stat | 0.354386 | |
| P(T<=t) one-tail | 0.362504 | |
| t Critical one-tail | 1.685953 | |
| P(T<=t) two-tail | 0.725009 | |
| t Critical two-tail | 2.024394 | |

2. Referring to Table 1, what is the standardized value of the estimate of the mean of the sampling distribution for the difference between sample means?
(a) 0.2025
(b) 0.3544
(c) 2.0115
(d) 2.2140

3. Referring to Table 1, what is the smallest level of significance at which the null hypothesis will still not be rejected?

(a) 0.05
(b) 0.10
(c) 0.3625
(d) 0.7250

4. At a computer manufacturing company, the actual size of computer chips is normally distributed with a mean of 1 centimeter and a standard deviation of 0.1 centimeter. A random sample of 12 computer chips is taken. Above what value do 2.5% of the sample means fall?

(a) 2.481
(b) 0.567
(c) 2.168
(d) 1.057

In Hawaii, condemnation proceedings are under way to enable private citizens to own the property that their homes are built on. Until recently, only estates were permitted to own land, and homeowners leased the land from the estate. In order to comply with the new law, a large Hawaiian estate wants to use regression analysis to estimate the fair market value of the land. The following model was fit to data collected for $n$ = 20 properties, 10 of which are located near a cove.

Model 1: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + \beta_4 X_1^2 + \beta_5 X_1^2 X_2 + \varepsilon$

where $Y$ = Sale price of property in thousands of dollars

$X_1$ = Size of property in thousands of square feet

$X_2$ = 1 if property located near cove, 0 if not

Using the data collected for the 20 properties, the following partial output obtained from Microsoft Excel is shown:

**Table 2. Regression results**

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.985 |
| R Square | 0.970 |
| Standard Error | 9.5 |
| Observations | 20 |

ANOVA

| | *df* | SS | MS | *F* | *Signif F* |
|---|---|---|---|---|---|
| Regression | 5 | 28324 | 5664 | 62.2 | 0.0001 |
| Residual | 14 | 1279 | 91 | | |
| Total | 19 | 29063 | | | |

| | Coeff | StdError | *t Stat* | *P-value* |
|---|---|---|---|---|
| Intercept | – 32.1 | 35.7 | – 0.90 | 0.3834 |
| Size | 12.2 | 5.9 | 2.05 | 0.0594 |
| Cove | – 104.3 | 53.5 | – 1.95 | 0.0715 |
| Size*Cove | 17.0 | 8.5 | 1.99 | 0.0661 |
| SizeSq | – 0.3 | 0.2 | – 1.28 | 0.2204 |
| SizeSq*Cove | – 0.3 | 0.3 | – 1.13 | 0.2749 |

5. Referring to Table 2, is the overall model statistically adequate at a 0.05 level of significance for predicting sale price ($Y$)?

(a) No, since some of the $t$ tests for the individual variables are not significant.

(b) No, since the standard deviation of the model is fairly large.

(c) Yes, since none of the $\beta$-estimates are equal to 0.

(d) Yes, since the $p$-value for the test is smaller than 0.05.

6. Referring to Table 2, given a quadratic relationship between sale price ($Y$) and property size ($X_1$), what null hypothesis would you test to determine whether the curves differ from cove and non-cove properties?

(a) $H_0:\ \beta_2 = \beta_3 = \beta_5 = 0$

(b) $H_0:\ \beta_4 = \beta_5 = 0$

(c) $H_0:\ \beta_3 = \beta_5 = 0$

(d) $H_0:\ \beta_2 = 0$

7. Referring to Table 2, given a quadratic relationship between sale price ($Y$) and property size ($X_1$), what test should be used to test whether the curves differ from cove and non-cove properties?

(a) $F$ test for the entire regression model.

(b) $t$ test on each of the coefficients in the entire regression model.

(c) Partial $F$ test on the subset of the appropriate coefficients.

(d) $t$ test on each of the subsets of the appropriate coefficients.

## II. Calculation (65%)

1. (5%) It is important to sponsors of television shows that viewers remember as much as possible about the commercials. The advertising executive of a large company is trying to decide which of two commercials to use on a weekly half-hour comedy. To help make a decision she decides to have 12 individuals watch both commercials. After each viewing, each respondent is given a quiz consisting of 10 questions. The number of correct responses is recorded and listed below. Assume that the quiz results are not normally distributed.

*Quiz Scores*

| Respondent | Commercial 1 | Commercial 2 |
|---|---|---|
| 1 | 7 | 9 |
| 2 | 8 | 9 |
| 3 | 6 | 6 |
| 4 | 10 | 10 |
| 5 | 5 | 4 |
| 6 | 7 | 9 |
| 7 | 5 | 7 |
| 8 | 4 | 5 |
| 9 | 6 | 8 |
| 10 | 7 | 9 |
| 11 | 5 | 6 |
| 12 | 8 | 10 |

Does this data provide enough evidence at the 5% significance level to conclude that the responses to the two commercials differ?

2. A financier whose specialty is investing in movie productions has observed that, in general, movies with "big-name" stars seem to generate more revenue than those movies whose stars are less well known. To examine his belief he records the gross revenue and the payment (in $ millions) given to the two highest-paid performers in the movie for ten recently released movies.

| Movie | Cost of Two Highest Paid Performers ($mil) | Gross Revenue ($mil) |
|---|---|---|
| 1 | 5.3 | 48 |
| 2 | 7.2 | 65 |
| 3 | 1.3 | 18 |
| 4 | 1.8 | 20 |
| 5 | 3.5 | 31 |
| 6 | 2.6 | 26 |
| 7 | 8.0 | 73 |
| 8 | 2.4 | 23 |
| 9 | 4.5 | 39 |
| 10 | 6.7 | 58 |

(a) (5%) Predict with 95% confidence the gross revenue of a movie whose top two stars earn \$5.0 million.

(b) (5%) Estimate with 95% confidence the average gross revenue of a movie whose top two stars earn \$5.0 million.

3. Given two independent discrete random variables $X$ and $Y$ defined on the same sample space $\Omega$. Let $p_{XY}(x, y)$ be the joint probability function. Please answer the following questions:

(a) (10%) Let the expectation operator be denoted by $E\{\cdot\}$. Please show that

$$E\{XY\} = E\{X\}E\{Y\}.$$

(b) (5%) Given two uncorrelated random variables $A$ and $B$ defined on $\Omega = \{1, 2, 3\}$. Please give an example of dependent $A$ and $B$. (Note: You have to clearly define $A$, $B$ and their joint probability function $p_{AB}(x, y)$.)

4. Let $S_t$ be a stochastic process represented in Figure 1, which is interpreted as the stock price at $t$, where $t = 0, 1, 2$.

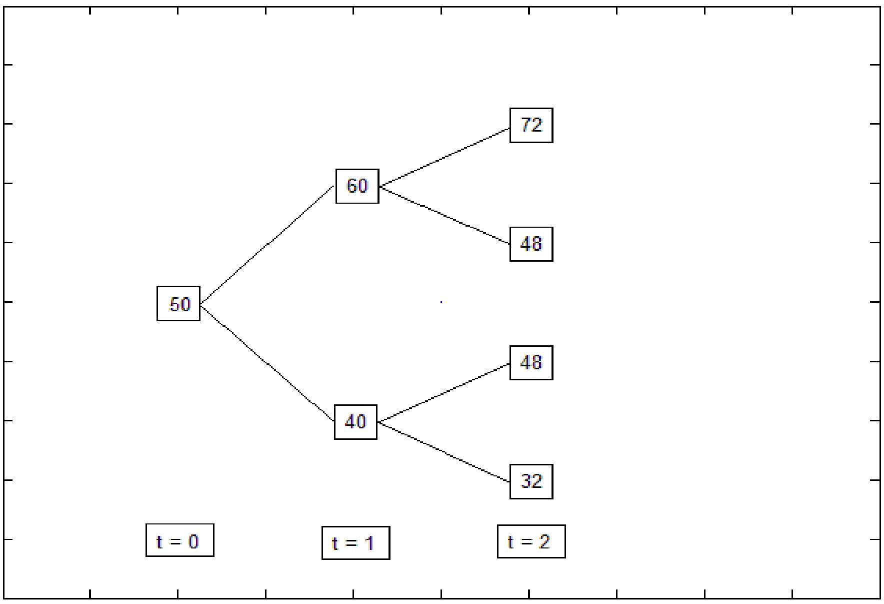



**Figure 1**

Suppose that the stock price goes up (down) with probability 0.5 per period. Please answer the following questions:

(a) (8%) Let $t > u$ and the conditional expectation be denoted by $E\left\{S_t \middle| S_u = s\right\}$, i.e., the expectation of $S_t$ given the condition $S_u = s$. Please evaluate $E\left\{S_1 \middle| S_0 = 50\right\}$, $E\left\{S_2 \middle| S_0 = 50\right\}$, $E\left\{S_2 \middle| S_1 = 60\right\}$ and $E\left\{S_2 \middle| S_1 = 40\right\}$.

(b) (3%) Let the annual risk-free rate be 0. Please explain the link between Efficient Market Hypothesis and the results in (a).

5. Let $S(0) = S_0 > 0$ denote the present stock price. Suppose that the stock price follows a stochastic process $S(t)$, for $0 \le t \le T$, which has the same distribution as

$$S_0 e^{\left(r - \frac{\sigma^2}{2}\right)t + \sigma\sqrt{t}Z}$$

at $t$, where $Z$ is a standard normal distribution, $r$ is the annual interest rate and $\sigma > 0$ is the stock volatility. Let $N(x)$ be the cumulative distribution function of the standard normal distribution $Z$. Denote

$$d_1 = \frac{\ln\left(\frac{S_0}{K}\right) + \left(r + \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}},$$

$$d_2 = d_1 - \sigma\sqrt{T},$$

where $K > 0$. Please answer the following questions:

(a) (8%) Please show that

$$E\left\{e^{-rt} S(t)\right\} = S_0.$$

(b) (8%) Let

$$X = \begin{cases} S_T, & S_T > K \\ 0, & S_T \le K \end{cases}.$$

Please show that

$$E\left\{e^{-rT} X\right\} = S_0 N(d_1).$$

(c) (4%) What is the law of large numbers?

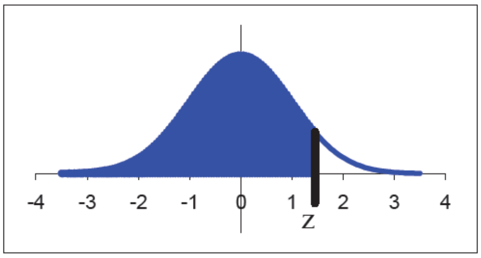
(d) (4%) Please explain how to numerically estimate the result in (b).

**Table　Standard Normal Probabilities**

The values in the table below are cumulative probabilities for the standard normal distribution *Z* (that is, the normal distribution with mean 0 and standard deviation 1). These probabilities are values of the following integral:

$$P\left(Z \leq z\right) = \int_{-\infty}^{z} \frac{1}{\sqrt{2\pi}} e^{-x^2/2} dx$$

Geometrically, the values represent the area to the left of *z* under the density curve of the standard normal distribution:




| z | .00 | .01 | .02 | .03 | .04 | .05 | .06 | .07 | .08 | .09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.5000 | 0.5040 | 0.5080 | 0.5120 | 0.5160 | 0.5199 | 0.5239 | 0.5279 | 0.5319 | 0.5359 |
| 0.1 | 0.5398 | 0.5438 | 0.5478 | 0.5517 | 0.5557 | 0.5596 | 0.5636 | 0.5675 | 0.5714 | 0.5753 |
| 0.2 | 0.5793 | 0.5832 | 0.5871 | 0.5910 | 0.5948 | 0.5987 | 0.6026 | 0.6064 | 0.6103 | 0.6141 |
| 0.3 | 0.6179 | 0.6217 | 0.6255 | 0.6293 | 0.6331 | 0.6368 | 0.6406 | 0.6443 | 0.6480 | 0.6517 |
| 0.4 | 0.6554 | 0.6591 | 0.6628 | 0.6664 | 0.6700 | 0.6736 | 0.6772 | 0.6808 | 0.6844 | 0.6879 |
| 0.5 | 0.6915 | 0.6950 | 0.6985 | 0.7019 | 0.7054 | 0.7088 | 0.7123 | 0.7157 | 0.7190 | 0.7224 |
| 0.6 | 0.7257 | 0.7291 | 0.7324 | 0.7357 | 0.7389 | 0.7422 | 0.7454 | 0.7486 | 0.7517 | 0.7549 |
| 0.7 | 0.7580 | 0.7611 | 0.7642 | 0.7673 | 0.7704 | 0.7734 | 0.7764 | 0.7794 | 0.7823 | 0.7852 |
| 0.8 | 0.7881 | 0.7910 | 0.7939 | 0.7967 | 0.7995 | 0.8023 | 0.8051 | 0.8078 | 0.8106 | 0.8133 |
| 0.9 | 0.8159 | 0.8186 | 0.8212 | 0.8238 | 0.8264 | 0.8289 | 0.8315 | 0.8340 | 0.8365 | 0.8389 |
| 1.0 | 0.8413 | 0.8438 | 0.8461 | 0.8485 | 0.8508 | 0.8531 | 0.8554 | 0.8577 | 0.8599 | 0.8621 |
| 1.1 | 0.8643 | 0.8665 | 0.8686 | 0.8708 | 0.8729 | 0.8749 | 0.8770 | 0.8790 | 0.8810 | 0.8830 |
| 1.2 | 0.8849 | 0.8869 | 0.8888 | 0.8907 | 0.8925 | 0.8944 | 0.8962 | 0.8980 | 0.8997 | 0.9015 |
| 1.3 | 0.9032 | 0.9049 | 0.9066 | 0.9082 | 0.9099 | 0.9115 | 0.9131 | 0.9147 | 0.9162 | 0.9177 |
| 1.4 | 0.9192 | 0.9207 | 0.9222 | 0.9236 | 0.9251 | 0.9265 | 0.9279 | 0.9292 | 0.9306 | 0.9319 |
| 1.5 | 0.9332 | 0.9345 | 0.9357 | 0.9370 | 0.9382 | 0.9394 | 0.9406 | 0.9418 | 0.9429 | 0.9441 |
| 1.6 | 0.9452 | 0.9463 | 0.9474 | 0.9484 | 0.9495 | 0.9505 | 0.9515 | 0.9525 | 0.9535 | 0.9545 |
| 1.7 | 0.9554 | 0.9564 | 0.9573 | 0.9582 | 0.9591 | 0.9599 | 0.9608 | 0.9616 | 0.9625 | 0.9633 |
| 1.8 | 0.9641 | 0.9649 | 0.9656 | 0.9664 | 0.9671 | 0.9678 | 0.9686 | 0.9693 | 0.9699 | 0.9706 |
| 1.9 | 0.9713 | 0.9719 | 0.9726 | 0.9732 | 0.9738 | 0.9744 | 0.9750 | 0.9756 | 0.9761 | 0.9767 |
| 2.0 | 0.9772 | 0.9778 | 0.9783 | 0.9788 | 0.9793 | 0.9798 | 0.9803 | 0.9808 | 0.9812 | 0.9817 |
| 2.1 | 0.9821 | 0.9826 | 0.9830 | 0.9834 | 0.9838 | 0.9842 | 0.9846 | 0.9850 | 0.9854 | 0.9857 |
| 2.2 | 0.9861 | 0.9864 | 0.9868 | 0.9871 | 0.9875 | 0.9878 | 0.9881 | 0.9884 | 0.9887 | 0.9890 |
| 2.3 | 0.9893 | 0.9896 | 0.9898 | 0.9901 | 0.9904 | 0.9906 | 0.9909 | 0.9911 | 0.9913 | 0.9916 |
| 2.4 | 0.9918 | 0.9920 | 0.9922 | 0.9925 | 0.9927 | 0.9929 | 0.9931 | 0.9932 | 0.9934 | 0.9936 |
| 2.5 | 0.9938 | 0.9940 | 0.9941 | 0.9943 | 0.9945 | 0.9946 | 0.9948 | 0.9949 | 0.9951 | 0.9952 |
| 2.6 | 0.9953 | 0.9955 | 0.9956 | 0.9957 | 0.9959 | 0.9960 | 0.9961 | 0.9962 | 0.9963 | 0.9964 |
| 2.7 | 0.9965 | 0.9966 | 0.9967 | 0.9968 | 0.9969 | 0.9970 | 0.9971 | 0.9972 | 0.9973 | 0.9974 |
| 2.8 | 0.9974 | 0.9975 | 0.9976 | 0.9977 | 0.9977 | 0.9978 | 0.9979 | 0.9979 | 0.9980 | 0.9981 |
| 2.9 | 0.9981 | 0.9982 | 0.9982 | 0.9983 | 0.9984 | 0.9984 | 0.9985 | 0.9985 | 0.9986 | 0.9986 |
| 3.0 | 0.9987 | 0.9987 | 0.9987 | 0.9988 | 0.9988 | 0.9989 | 0.9989 | 0.9989 | 0.9990 | 0.9990 |
| 3.1 | 0.9990 | 0.9991 | 0.9991 | 0.9991 | 0.9992 | 0.9992 | 0.9992 | 0.9992 | 0.9993 | 0.9993 |
| 3.2 | 0.9993 | 0.9993 | 0.9994 | 0.9994 | 0.9994 | 0.9994 | 0.9994 | 0.9995 | 0.9995 | 0.9995 |
| 3.3 | 0.9995 | 0.9995 | 0.9995 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9997 |
| 3.4 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9998 |

**Table t-Distribution Critical Values**

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The entries in the table below are the critical values $t_{n,p}$, where $n$ represents the number of degrees of freedom and $p$ is the upper tail probability. That is, if $T$ has the $t$-distribution with $n$ degrees of freedom, then the value in the table represents the number $t_{n,p}$ such that $P\left(T > t_{n,p}\right) = p$.

| | Upper Tail Probability p | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| d.f. | 0.20 | 0.15 | 0.10 | 0.05 | 0.025 | 0.01 | 0.005 | 0.0025 | 0.001 | 0.0005 |
| 1 | 1.376 | 1.963 | 3.078 | 6.314 | 12.706 | 31.821 | 63.657 | 127.321 | 318.309 | 636.619 |
| 2 | 1.061 | 1.386 | 1.886 | 2.920 | 4.303 | 6.965 | 9.925 | 14.089 | 22.327 | 31.599 |
| 3 | 0.978 | 1.250 | 1.638 | 2.353 | 3.182 | 4.541 | 5.841 | 7.453 | 10.215 | 12.924 |
| 4 | 0.941 | 1.190 | 1.533 | 2.132 | 2.776 | 3.747 | 4.604 | 5.598 | 7.173 | 8.610 |
| 5 | 0.920 | 1.156 | 1.476 | 2.015 | 2.571 | 3.365 | 4.032 | 4.773 | 5.893 | 6.869 |
| 6 | 0.906 | 1.134 | 1.440 | 1.943 | 2.447 | 3.143 | 3.707 | 4.317 | 5.208 | 5.959 |
| 7 | 0.896 | 1.119 | 1.415 | 1.895 | 2.365 | 2.998 | 3.499 | 4.029 | 4.785 | 5.408 |
| 8 | 0.889 | 1.108 | 1.397 | 1.860 | 2.306 | 2.896 | 3.355 | 3.833 | 4.501 | 5.041 |
| 9 | 0.883 | 1.100 | 1.383 | 1.833 | 2.262 | 2.821 | 3.250 | 3.690 | 4.297 | 4.781 |
| 10 | 0.879 | 1.093 | 1.372 | 1.812 | 2.228 | 2.764 | 3.169 | 3.581 | 4.144 | 4.587 |
| 11 | 0.876 | 1.088 | 1.363 | 1.796 | 2.201 | 2.718 | 3.106 | 3.497 | 4.025 | 4.437 |
| 12 | 0.873 | 1.083 | 1.356 | 1.782 | 2.179 | 2.681 | 3.055 | 3.428 | 3.930 | 4.318 |
| 13 | 0.870 | 1.079 | 1.350 | 1.771 | 2.160 | 2.650 | 3.012 | 3.372 | 3.852 | 4.221 |
| 14 | 0.868 | 1.076 | 1.345 | 1.761 | 2.145 | 2.624 | 2.977 | 3.326 | 3.787 | 4.140 |
| 15 | 0.866 | 1.074 | 1.341 | 1.753 | 2.131 | 2.602 | 2.947 | 3.286 | 3.733 | 4.073 |
| 16 | 0.865 | 1.071 | 1.337 | 1.746 | 2.120 | 2.583 | 2.921 | 3.252 | 3.686 | 4.015 |
| 17 | 0.863 | 1.069 | 1.333 | 1.740 | 2.110 | 2.567 | 2.898 | 3.222 | 3.646 | 3.965 |
| 18 | 0.862 | 1.067 | 1.330 | 1.734 | 2.101 | 2.552 | 2.878 | 3.197 | 3.610 | 3.922 |
| 19 | 0.861 | 1.066 | 1.328 | 1.729 | 2.093 | 2.539 | 2.861 | 3.174 | 3.579 | 3.883 |
| 20 | 0.860 | 1.064 | 1.325 | 1.725 | 2.086 | 2.528 | 2.845 | 3.153 | 3.552 | 3.850 |
| 21 | 0.859 | 1.063 | 1.323 | 1.721 | 2.080 | 2.518 | 2.831 | 3.135 | 3.527 | 3.819 |
| 22 | 0.858 | 1.061 | 1.321 | 1.717 | 2.074 | 2.508 | 2.819 | 3.119 | 3.505 | 3.792 |
| 23 | 0.858 | 1.060 | 1.319 | 1.714 | 2.069 | 2.500 | 2.807 | 3.104 | 3.485 | 3.768 |
| 24 | 0.857 | 1.059 | 1.318 | 1.711 | 2.064 | 2.492 | 2.797 | 3.091 | 3.467 | 3.745 |
| 25 | 0.856 | 1.058 | 1.316 | 1.708 | 2.060 | 2.485 | 2.787 | 3.078 | 3.450 | 3.725 |
| 26 | 0.856 | 1.058 | 1.315 | 1.706 | 2.056 | 2.479 | 2.779 | 3.067 | 3.435 | 3.707 |
| 27 | 0.855 | 1.057 | 1.314 | 1.703 | 2.052 | 2.473 | 2.771 | 3.057 | 3.421 | 3.690 |
| 28 | 0.855 | 1.056 | 1.313 | 1.701 | 2.048 | 2.467 | 2.763 | 3.047 | 3.408 | 3.674 |
| 29 | 0.854 | 1.055 | 1.311 | 1.699 | 2.045 | 2.462 | 2.756 | 3.038 | 3.396 | 3.659 |
| 30 | 0.854 | 1.055 | 1.310 | 1.697 | 2.042 | 2.457 | 2.750 | 3.030 | 3.385 | 3.646 |
| 35 | 0.852 | 1.052 | 1.306 | 1.690 | 2.030 | 2.438 | 2.724 | 2.996 | 3.340 | 3.591 |
| 40 | 0.851 | 1.050 | 1.303 | 1.684 | 2.021 | 2.423 | 2.704 | 2.971 | 3.307 | 3.551 |
| 45 | 0.850 | 1.049 | 1.301 | 1.679 | 2.014 | 2.412 | 2.690 | 2.952 | 3.281 | 3.520 |
| 50 | 0.849 | 1.047 | 1.299 | 1.676 | 2.009 | 2.403 | 2.678 | 2.937 | 3.261 | 3.496 |
| 55 | 0.848 | 1.046 | 1.297 | 1.673 | 2.004 | 2.396 | 2.668 | 2.925 | 3.245 | 3.476 |
| 60 | 0.848 | 1.045 | 1.296 | 1.671 | 2.000 | 2.390 | 2.660 | 2.915 | 3.232 | 3.460 |
| 65 | 0.847 | 1.045 | 1.295 | 1.669 | 1.997 | 2.385 | 2.654 | 2.906 | 3.220 | 3.447 |
| 70 | 0.847 | 1.044 | 1.294 | 1.667 | 1.994 | 2.381 | 2.648 | 2.899 | 3.211 | 3.435 |
| 75 | 0.846 | 1.044 | 1.293 | 1.665 | 1.992 | 2.377 | 2.643 | 2.892 | 3.202 | 3.425 |
| 80 | 0.846 | 1.043 | 1.292 | 1.664 | 1.990 | 2.374 | 2.639 | 2.887 | 3.195 | 3.416 |
| 85 | 0.846 | 1.043 | 1.292 | 1.663 | 1.988 | 2.371 | 2.635 | 2.882 | 3.189 | 3.409 |
| 90 | 0.846 | 1.042 | 1.291 | 1.662 | 1.987 | 2.368 | 2.632 | 2.878 | 3.183 | 3.402 |
| 95 | 0.845 | 1.042 | 1.291 | 1.661 | 1.985 | 2.366 | 2.629 | 2.874 | 3.178 | 3.396 |
| 100 | 0.845 | 1.042 | 1.290 | 1.660 | 1.984 | 2.364 | 2.626 | 2.871 | 3.174 | 3.390 |
| 150 | 0.844 | 1.040 | 1.287 | 1.655 | 1.976 | 2.351 | 2.609 | 2.849 | 3.145 | 3.357 |
| 250 | 0.843 | 1.039 | 1.285 | 1.651 | 1.969 | 2.341 | 2.596 | 2.832 | 3.123 | 3.330 |
| 1000 | 0.842 | 1.037 | 1.282 | 1.646 | 1.962 | 2.330 | 2.581 | 2.813 | 3.098 | 3.300 |
| ∞ | 0.842 | 1.036 | 1.282 | 1.645 | 1.960 | 2.326 | 2.576 | 2.807 | 3.090 | 3.291 |