

**Ahmad Thesis**

*Submitted in partial fulfillment of the requirements for the degree of*

**Doctor of Philosophy**

*by*

**Shaik Ahmad**



**VIT<sup>®</sup>**

**Vellore Institute of Technology**

(Deemed to be University under section 3 of UGC Act, 1956)

**Month, Year**

## **DECLARATION**

I here by declare that the thesis entitled “Thesis Title” submitted by me, for the award of the degree of *Doctor of Philosophy* to VIT University is a record of bonafide work carried out by me under the supervision of Dr. Guide Name, Designation, School or Centre Name, VIT University, Vellore.

I further declare that the work reported in this thesis has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Place: Vellore

Date:

**Signature of the Candidate**

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The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university. The thesis fulfills the requirements and regulations of the University and in my opinion meets the necessary standards for submission.

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**Signature of the Guide**  
**(Dr. Guide Name)**

## ABSTRACT

Abstract should be one page synopsis of the thesis typed one and a half line spacing, Font Style: Times New Roman and Font Size: 12. The abstract is a very brief summary of the thesis contents. It should be about one page long not more than 300 words. The 300-word statement should describe the problem addressed by your thesis, a description of the work completed and a summary of any findings or lessons learned. The format is given Appendix D.

**Keywords:** *Thesis, Dissertation, Degree, Sample Thesis, Literature.*

## ACKNOWLEDGEMENT

With immense pleasure and deep sense of gratitude, I wish to express my sincere thanks to my supervisor **Dr. Guide Name**, Designation, School or Centre Name, VIT University, without his/her motivation and continuous encouragement, this research would not have been successfully completed.

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I express my sincere thanks to **Dr. Dean / Director Name**, Dean/Director, School or Centre, VIT University for his kind words of support and encouragement. I like to acknowledge the support rendered by **my colleagues** in several ways throughout my research work.

I wish to extend my profound sense of gratitude to **my parents** for all the sacrifices they made during my research and also providing me with moral support and encouragement whenever required.

Last but not the least, I would like to thank my wife **Name** and my son/daughter **Name** for their constant encouragement and moral support along with patience and understanding.

Place: Vellore

Date: dd/mm/yyyy

**YOUR NAME**

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## **CHAPTER 1**

### **Chapter Title**

#### **1.1 Introduction**

A thesis or dissertation is a document submitted in support of candidature for an academic degree or professional qualification presenting the author's research and findings. In some contexts, the word "thesis" or a cognate is used for part of a bachelor's or master's course, while "dissertation" is normally applied to a doctorate, while in other contexts, the reverse is true.

These guidelines are provided to formally expose you to the various ethical and technical issues involved in writing up your work and the format you are required to adhere to while submitting your work as MS [By Research] / Ph D Synopsis / thesis or M Phil dissertation.

#### **1.2 Ethics Involved**

Knowing the difference between ethical and unethical practices in technical writing requires an understanding of plagiarism, paraphrasing, and quotation. These concepts are defined below. The definitions are reproduced from the 'Handbook of Technical Writing' by Brusaw.

#### **1.3 Plagiarism**

To use someone else's exact words without quotation marks and appropriate credit, or to use the unique ideas of someone else without acknowledgement, is known as plagiarism. In publishing, plagiarism is illegal; in other circumstances, it is, at the least, unethical. You may quote or paraphrase the words or ideas of another if you document your source. Although you need not enclose the paraphrased material in quotation marks, you must document the source.

Paraphrased ideas are taken from someone else whether or not the words are identical. Paraphrasing a passage without citing the source is permissible only when the information paraphrased is common knowledge in a field. (Common knowledge refers to historical, scientific, geographical, technical, and other type of information on a topic readily available in handbooks, manuals, atlases and other references).

## **CHAPTER 2**

### **Chapter Title**

#### **2.1 Review of Literature**

A literature review is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and do not report new or original experimental work. Most often associated with academic-oriented literature, such reviews are found in academic journals, and are not to be confused with book reviews that may also appear in the same publication. Literature reviews are a basis for research in nearly every academic field (Maedche and Staab 2001). A narrow-scope literature review may be included as part of a peer-reviewed journal article presenting new research, serving to situate the current study within the body of the relevant literature and to provide context for the reader. In such a case, the review usually precedes the methodology and results sections of the work.

Producing a literature review may also be part of graduate and post-graduate student work, including in the preparation of a thesis, dissertation, or a journal article. Literature reviews are also common in a research proposal or prospectus (the document that is approved before a student formally begins a dissertation or thesis) (Doan et al. 2002, Duzdevich et al. 2014).

#### **2.2 Review Types**

The main types of literature reviews are: evaluative, exploratory, and instrumental (Duzdevich et al. 2014, Thiruganam et al. 2010).

A fourth type, the systematic review, is often classified separately, but is essentially a literature review focused on a research question, trying to identify, appraise, select and synthesize all high-quality research evidence and arguments relevant to that question. A meta-analysis is typically a systematic review using statistical methods to effectively combine the data used on all selected studies to produce a more reliable result.

### 2.2.1 Process And Product

Gilbarg and Trudinger (2015) distinguish between the process of reviewing the literature and a finished work or product known as a literature review. The process of reviewing the literature is often ongoing and informs many aspects of the empirical research project. All of the latest literature should inform a research project. Scholars need to be scanning the literature long after a formal literature review product appears to be completed.

### 2.3 Page Limitation

A careful literature review is usually 15 to 30 pages and could be longer. The process of reviewing the literature requires different kinds of activities and ways of thinking (Duzdevich et al. 2014) and Kothari (2004a) link the activities of doing a literature review with Benjamin Blooms revised taxonomy of the cognitive domain (ways of thinking: remembering, understanding, applying, analysing, evaluating, and creating).

## **CHAPTER 3**

### **Chapter Title**

#### **3.1 Paraphrasing**

”When you paraphrase a written passage, you rewrite it to state the essential ideas in your own words. Because you do not quote your source word for word when paraphrasing, it is unnecessary to enclose the paraphrased material in quotation marks. However, the paraphrased material must be properly referenced because the ideas are taken from someone else whether or not the words are identical.

Ordinarily, the majority of the notes you take during the research phase of writing your report will paraphrase the original material. Paraphrase only the essential ideas. Strive to put original ideas into your own words without distorting them.”

#### **3.2 Quotations**

”When you have borrowed words, facts, or idea of any kind from someone else’s work, acknowledge your debt by giving your source credit in footnote (or in running text as cited reference). Otherwise, you will be guilty of plagiarism. Also, be sure you have represented the original material honestly and accurately. Direct word to word quotations are enclosed in quotation marks.”

When you use programs written by others with or without modifications, the report/thesis must clearly bring this out with proper references, and must also reflect the extent of modification introduced by you, if any. A modified program is not entirely yours. Only a program, which you write from scratch, does not require source to be identified. Identification of source in all other cases is must. Standard subroutines (even if public domain) used in your programs must be properly referenced. Although programs need not be appended to the thesis, they must be submitted to your research supervisor in hard copy and other media. Inclusion of a computational flow chart in your thesis is highly recommended, however.

The material presented in the thesis/report must be self contained. A reader must be able to reproduce your experimental, theoretical, computational, and simulations results based on the information presented in the thesis. You must mention the names of the

suppliers whose chemicals/instruments were used in the work to allow a reader to setup an experiment. While discussing issues related to computation time, the hardware used must be specified accurately, using processor speed, etc.

### 3.2.1 Quotation and Reference to Earlier Work

If reproduction of some text material available in a published work can enhance the value to your thesis, you can add it to your thesis in the form of quoted material or a quotation. Such material should be indented on both sides over and above the indentation used for the regular text. It should preferably be single spaced, and appear as a separate paragraph(s), whether short or long. The idea is to make such material stand out from the rest of the text that you have written. Clearly, too many quotations or quoted paragraphs are not desirable in a thesis which is an original piece of work. Not quoting a material taken verbatim from another source is however plagiarism. Paraphrasing and giving credit to the author(s) is more accepted way of referring to earlier works.

### 3.2.2 Use of Abbreviations

In Chapters, while introducing abbreviations, follow:

```
\newacronym{URL}{URL}{Uniform Resource Locator}
```

and in chapters it can be used as:

```
\gls{URL}
```

Which produces the following output first time when you call it: Uniform Resource Locator (URL) and simply URL each subsequent time.

## 3.3 References

Choose a respected journal in your field in which title of the paper also appear in the list of references and consistently follow the citation style used by this journal. Names of all the authors with their initials, title of the article, names of editors for edited books or proceedings, and the range of pages that contain the referenced material must appear in the bibliography. You should not mix citation styles of several journals and not to create your own style.

### 3.3.1 Citation Format

All references and citation should be of the standard "Harvard Style" (Author, Year) format.



#### 3.3.1.1 Single Author Citation

- Citation at the beginning of the sentence
  - Jones (2011) emphasized that citations in a text should be consistent.
- Citation at the End of the Sentence:
  - It was emphasized that citations in a text should be consistent (Jones, 2011).

#### 3.3.1.2 Double Authors Citation

- Citation at the beginning of the sentence
  - Jones and Baker (2011) emphasized that citations in a text should be consistent.
- Citation at the End of the Sentence
  - It was emphasized that citations in a text should be consistent (Jones and Baker, 2011).

#### 3.3.1.3 More than Two Authors Citation

- Citation at the beginning of the sentence
  - Jones et al. (2011) emphasized that citations in a text should be consistent.
- Citation at the End of the Sentence
  - It was emphasised that citations in a text should be consistent (Jones et al., 2011).

#### 3.3.1.4 Sources Written in the same year by the same author(s)

- It was emphasized that citations in a text should be consistent (Jones, 1998a). In a work published later that year, Jones (1998b) proposed that...
- It was emphasized that citations in a text should be consistent (Jones, 1998a; 1998b).

#### 3.3.1.5 Sources Written by same author(s) in different Year(s)

- (Smith, 2013; 2005; 2001)

## CHAPTER 4

### Chapter Title

#### 4.1 Format for Preparation of Synopsis/Thesis / Dissertation

The following sections describes how your thesis should be formatted according to standard guidelines.

#### 4.2 Synopsis

Synopsis should be a condensed version of the thesis with a **maximum of 20 pages excluding references**.

#### 4.3 Sequencing

The sequence in which the thesis should be arranged and bound should be as follows:

1. Cover Page and Title Page
2. Declaration
3. Certificate
4. Abstract (not exceeding 300 words)
5. Acknowledgement (1 page)
6. Table of Contents
7. List of Figures / Exhibits / Charts
8. List of Tables
9. Symbols and Notations
10. Chapters
11. Appendices
12. References

## 4.4 Page Dimensions and Binding Specifications

The dimension for printing the thesis in bond sheet (Size A4) is as follows:

### 4.4.1 Page Specification

Left Margin : 1.5 inch  
Right Margin : 1 inch  
Top Margin : 1 inch  
Bottom Margin : 1 inch

### 4.4.2 Thesis Binding

The thesis should be bound using flexible cover (soft binding) for initial submission. The cover should be printed in black letters and the text for printing should be identical. After defensive viva, the thesis should be bound using rough surface rexin black cover printed in golden letters. The guidelines total number of pages in the report for each program is shown below:

**Table 4.1** Total Number of Pages in the Thesis

Course	Color of Art Paper	Total Number of Pages in the Thesis
Ph D	White	Min. of 100 (Excluding References, Appendices and Front pages)
M Phil / M S [By Research]	White	Min. of 80 - Max. of 200 (Excluding References, Appendices and Front pages)

### 4.4.3 Printing Standard

For Initial Submission : JK Bond Sheet  
For Final Submission : Executive Bond Sheet

## 4.5 Page Numbers

All text pages as well as program source code listings should be numbered using Arabic numerals at the bottom center of the pages.

## 4.6 Font

Times New Roman 12pt font should be used consistently throughout the text. Captions for tables and figures can be in smaller fonts, but not smaller than 10pt.

## 4.7 Paragraphs

No paragraph should have its opening line at the bottom of a page. A clear, consistent, but not too large a separation must be provided between the paragraphs throughout the thesis.

## 4.8 Line Spacing

The line spacing used should be the same throughout the text, and can be chosen to be 1.5. The lines in captions for figures and tables, Table of Contents, List of Figures, and List of Tables should be 1.5 line spacing.

## 4.9 Headings

Chapter Heading	Font Size: 16, Bold, Times New Roman, Title Case
Section Heading	Font Size: 14, Times New Roman, Title Case
Subsection Heading	Font Size: 12, Bold, Times New Roman, Title Case

## CHAPTER 5

### Chapter Title

#### 5.1 Tables in Thesis

- All Table Caption should be in Title Case, TNR 10 Pt. It should be of the Format:
  - Table 1.1 Results of the Experiment .(Centered)
- It should be cited as Table 1.1.
- Caption should appear above the Table.
- Table Header and the entries should be of Font TNR 10 Pt, Justified.
- For wider Table, the page orientation can be Landscape.
- For Larger Table, it can run to pages and the header should be repeated for each page of the Table.
- Table must be adjusted to fit in the page and no single row is left out for a new page.

Sample Table 5.1 and Table 5.2 are given below for your reference,

**Table 5.1** Country List

Country Name or Area Name	ISO ALPHA 2 Code	ISO ALPHA 3 Code	ISO numeric Code
Afghanistan	AF	AFG	004
Aland Islands	AX	ALA	248
Albania	AL	ALB	008
Algeria	DZ	DZA	012
American Samoa	AS	ASM	016
Andorra	AD	AND	020
Angola	AO	AGO	024

**Table 5.2** Data Units, Sources, and Dates

Variable	Dates	Units	Source
<b>Nominal Physical Capital Stock</b>	1950-1990	Billions US\$	Nehru and Dhareshwar (1993)
<b>Total Population</b>	1950-1990	Billions	Nehru and Dhareshwar (1993)
<b>Nominal GDP</b>	1950-1990	Billions US\$	PWT
<b>Real GDP per capita</b>	1950-1990	2005 US\$ per capita	PWT

## 5.2 Math Equation in Thesis

All equation should be written using equation editor or using an equivalent tool.

- Equations should be numbered as : 1.1, 1.2 ...
- Equation should be Centered, 12 Pt, TNR.
- Equation number should be right Justified
- It should be cited as Eqn. 1.1.

For example in Eqn. 5.1, The well known Pythagorean theorem  $x^2 + y^2 = z^2$  was proved to be invalid for other exponents. Meaning the next equation has no integer solutions:

$$x^n + y^n = z^n \quad (5.1)$$

The mass-energy equivalence is described by the famous equation in Eqn. 5.2

$$E = mc^2 \quad (5.2)$$

discovered in 1905 by Albert Einstein.

## CHAPTER 6

### Chapter Title

#### 6.1 Figure

- All Figure Caption should be in the Title Case, TNR 10 pt, and it should be of the Format: Fig Chapter Number.Figure Number Figure Caption
- It should be cited as Fig. 6.1 Caption must appear below the Figure.
- For Smaller: (4 Figures arranged in Two Columns) / Page; Portrait Mod.
- For Medium: (2 Figures arranged one below the other / Page; Portrait Mode.
- For Larger: 1 Figure / Page; Landscape Mode.
- Figure Label should be in Font TNR 10 pt, Bold.
- Figure Resolution should be minimum of 300 DPI.

For example, The universe is immense and it seems to be homogeneous, in a large scale, everywhere we look at.

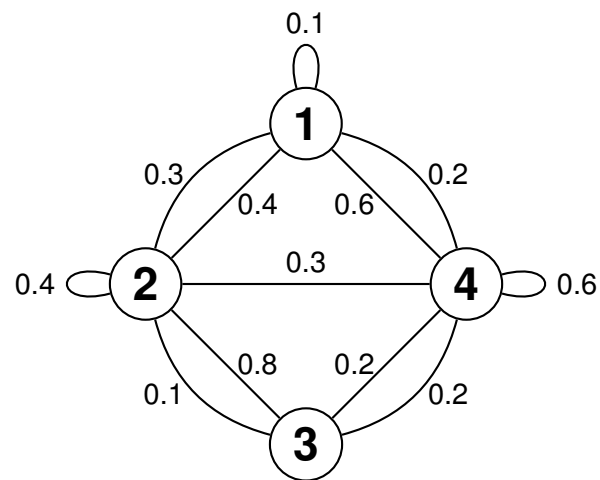


**Fig. 6.1** Sample Picture of Universe

There's a picture of a galaxy above in Fig. 6.1

## 6.2 Graph

Another example graph in image format is given below Fig. 6.2



**Fig. 6.2** Sample Graph



## **CHAPTER 7**

### **Chapter Title**

#### **7.1 Conclusion**

This section will need to have several elements, including:

- A brief summary, just a few paragraphs, of your key findings, related back to what you expected to see (essential);
- The conclusions which you have drawn from your research (essential);
- Why your research is important for researchers and practitioners (essential);
- Recommendations for future research (strongly recommended, verging on essential);
- Recommendations for practitioners (strongly recommended in management and business courses and some other areas, so check with your supervisor whether this will be expected); and a final paragraph rounding off your dissertation or thesis.

## REFERENCES

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- Thiruganam, M., Anuncia, S. M. and Kantipudi, S. (2010), ‘Automatic defect detection and counting in radiographic weldment images’, *International Journal of Computer Applications* **10**(2), 1–5.

## **LIST OF PUBLICATIONS**

1. Anuncia, S.M. and Saravanan, R., 2006. Non-destructive testing using radiographic images a survey. *Insight-Non-Destructive Testing and Condition Monitoring*, 48(10), pp.592-597.
2. Amalanathan, A. and Anuncia, S.M., 2016. A review on user influence ranking factors in social networks. *International Journal of Web Based Communities*, 12(1), pp.74-83.

# **Appendices**

## Appendix A

### CHI SQUARE DISTRIBUTION TABLE

df	0.995	0.99	0.975	0.95	0.9	0.1	0.05	0.025	0.01	0.005
1	0.000	0.000	0.001	0.004	0.016	2.706	3.841	5.024	6.635	7.879
2	0.01	0.02	0.051	0.103	0.211	4.605	5.991	7.378	9.21	10.597
3	0.072	0.115	0.216	0.352	0.584	6.251	7.815	9.348	11.345	12.838
4	0.207	0.297	0.484	0.711	1.064	7.779	9.488	11.143	13.277	14.86
5	0.412	0.554	0.831	1.145	1.61	9.236	11.07	12.833	15.086	16.75
6	0.676	0.872	1.237	1.635	2.204	10.645	12.592	14.449	16.812	18.548
7	0.989	1.239	1.69	2.167	2.833	12.017	14.067	16.013	18.475	20.278
8	1.344	1.646	2.18	2.733	3.49	13.362	15.507	17.535	20.09	21.955
9	1.735	2.088	2.7	3.325	4.168	14.684	16.919	19.023	21.666	23.589
10	2.156	2.558	3.247	3.94	4.865	15.987	18.307	20.483	23.209	25.188
11	2.603	3.053	3.816	4.575	5.578	17.275	19.675	21.92	24.725	26.757
12	3.074	3.571	4.404	5.226	6.304	18.549	21.026	23.337	26.217	28.3
13	3.565	4.107	5.009	5.892	7.042	19.812	22.362	24.736	27.688	29.819
14	4.075	4.66	5.629	6.571	7.79	21.064	23.685	26.119	29.141	31.319
15	4.601	5.229	6.262	7.261	8.547	22.307	24.996	27.488	30.578	32.801
16	5.142	5.812	6.908	7.962	9.312	23.542	26.296	28.845	32	34.267
17	5.697	6.408	7.564	8.672	10.085	24.769	27.587	30.191	33.409	35.718
18	6.265	7.015	8.231	9.39	10.865	25.989	28.869	31.526	34.805	37.156
19	6.844	7.633	8.907	10.117	11.651	27.204	30.144	32.852	36.191	38.582
20	7.434	8.26	9.591	10.851	12.443	28.412	31.41	34.17	37.566	39.997
21	8.034	8.897	10.283	11.591	13.24	29.615	32.671	35.479	38.932	41.401
22	8.643	9.542	10.982	12.338	14.041	30.813	33.924	36.781	40.289	42.796
23	9.26	10.196	11.689	13.091	14.848	32.007	35.172	38.076	41.638	44.181
24	9.886	10.856	12.401	13.848	15.659	33.196	36.415	39.364	42.98	45.559
25	10.52	11.524	13.12	14.611	16.473	34.382	37.652	40.646	44.314	46.928
26	11.16	12.198	13.844	15.379	17.292	35.563	38.885	41.923	45.642	48.29
27	11.808	12.879	14.573	16.151	18.114	36.741	40.113	43.195	46.963	49.645
28	12.461	13.565	15.308	16.928	18.939	37.916	41.337	44.461	48.278	50.993
29	13.121	14.256	16.047	17.708	19.768	39.087	42.557	45.722	49.588	52.336
30	13.787	14.953	16.791	18.493	20.599	40.256	43.773	46.979	50.892	53.672
40	20.707	22.164	24.433	26.509	29.051	51.805	55.758	59.342	63.691	66.766
50	27.991	29.707	32.357	34.764	37.689	63.167	67.505	71.42	76.154	79.49
60	35.534	37.485	40.482	43.188	46.459	74.397	79.082	83.298	88.379	91.952
70	43.275	45.442	48.758	51.739	55.329	85.527	90.531	95.023	100.425	104.215
80	51.172	53.54	57.153	60.391	64.278	96.578	101.879	106.629	112.329	116.321
90	59.196	61.754	65.647	69.126	73.291	107.565	113.145	118.136	124.116	128.299
100	67.328	70.065	74.222	77.929	82.358	118.498	124.342	129.561	135.807	140.169

## Appendix B

## 't' TABLE

Tail Probability		Degrees of Freedom																			Confidence Levels	
1-tail	2-tail	1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	100	1000	2-sided	1-sided
0.5	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
0.4	0.8	0.325	0.289	0.277	0.271	0.267	0.265	0.263	0.262	0.261	0.260	0.259	0.258	0.257	0.256	0.256	0.255	0.255	0.254	0.253		
0.3	0.6	0.727	0.617	0.584	0.569	0.559	0.553	0.549	0.546	0.543	0.542	0.539	0.536	0.533	0.531	0.530	0.529	0.528	0.526	0.525		
0.25	0.5	1.000	0.816	0.765	0.741	0.727	0.718	0.711	0.706	0.703	0.700	0.695	0.691	0.687	0.684	0.683	0.681	0.679	0.677	0.675		
0.2	0.4	1.376	1.061	0.978	0.941	0.920	0.906	0.896	0.889	0.883	0.879	0.873	0.866	0.860	0.856	0.854	0.851	0.849	0.845	0.842	80%	
0.17	0.34	1.691	1.242	1.132	1.082	1.054	1.036	1.024	1.015	1.008	1.002	0.994	0.986	0.977	0.973	0.970	0.966	0.963	0.959	0.955		
0.15	0.3	1.963	1.386	1.250	1.190	1.156	1.134	1.119	1.108	1.100	1.093	1.083	1.074	1.064	1.058	1.055	1.050	1.047	1.042	1.037		
0.14	0.28	2.125	1.467	1.315	1.248	1.211	1.187	1.171	1.159	1.149	1.142	1.131	1.121	1.110	1.104	1.100	1.095	1.092	1.086	1.081		
0.13	0.26	2.311	1.556	1.385	1.311	1.270	1.244	1.226	1.212	1.202	1.194	1.182	1.171	1.159	1.153	1.148	1.143	1.139	1.133	1.127		
0.12	0.24	2.526	1.654	1.462	1.379	1.333	1.304	1.284	1.269	1.258	1.249	1.236	1.224	1.211	1.204	1.199	1.193	1.189	1.182	1.176		
0.11	0.22	2.778	1.763	1.545	1.453	1.401	1.369	1.347	1.331	1.318	1.308	1.294	1.280	1.266	1.258	1.253	1.246	1.242	1.234	1.227	80%	90%
0.1	0.2	3.078	1.886	1.638	1.533	1.476	1.440	1.415	1.397	1.383	1.372	1.356	1.341	1.325	1.316	1.310	1.303	1.299	1.290	1.282		
0.09	0.18	3.442	2.026	1.741	1.623	1.558	1.517	1.489	1.469	1.454	1.442	1.424	1.406	1.389	1.379	1.373	1.365	1.360	1.350	1.342		
0.08	0.16	3.895	2.189	1.859	1.723	1.649	1.603	1.572	1.549	1.532	1.518	1.498	1.478	1.459	1.448	1.441	1.432	1.426	1.416	1.406		
0.075	0.15	4.165	2.282	1.924	1.778	1.699	1.650	1.617	1.592	1.574	1.559	1.538	1.517	1.497	1.485	1.477	1.468	1.462	1.451	1.441		
0.07	0.14	4.474	2.383	1.995	1.838	1.753	1.700	1.664	1.638	1.619	1.603	1.580	1.558	1.537	1.524	1.516	1.506	1.500	1.488	1.477		
0.065	0.13	4.829	2.495	2.072	1.902	1.810	1.754	1.715	1.687	1.666	1.650	1.626	1.602	1.579	1.566	1.557	1.546	1.539	1.527	1.515		
0.06	0.12	5.242	2.620	2.156	1.971	1.873	1.812	1.770	1.740	1.718	1.700	1.674	1.649	1.624	1.610	1.600	1.589	1.582	1.568	1.556		
0.055	0.11	5.730	2.760	2.249	2.048	1.941	1.874	1.830	1.797	1.773	1.754	1.726	1.699	1.672	1.657	1.647	1.635	1.627	1.613	1.600		
0.05	0.1	6.314	2.920	2.353	2.132	2.015	1.943	1.895	1.860	1.833	1.812	1.782	1.753	1.725	1.708	1.697	1.684	1.676	1.660	1.646	90%	95%
0.045	0.09	7.026	3.104	2.471	2.226	2.098	2.019	1.966	1.928	1.899	1.877	1.844	1.812	1.782	1.764	1.752	1.737	1.729	1.712	1.697		
0.04	0.08	7.916	3.320	2.605	2.333	2.191	2.104	2.046	2.004	1.973	1.948	1.912	1.878	1.844	1.825	1.812	1.796	1.787	1.769	1.752		
0.035	0.07	9.058	3.578	2.763	2.456	2.297	2.201	2.136	2.090	2.055	2.028	1.989	1.951	1.914	1.893	1.879	1.862	1.852	1.832	1.814		
0.03	0.06	10.57	3.896	2.951	2.601	2.422	2.313	2.241	2.189	2.150	2.120	2.076	2.034	1.994	1.970	1.955	1.936	1.924	1.902	1.883	95%	
0.025	0.05	12.70	4.303	3.182	2.776	2.571	2.447	2.365	2.306	2.262	2.228	2.179	2.131	2.086	2.060	2.042	2.021	2.009	1.984	1.962		
0.02	0.04	15.89	4.849	3.482	2.999	2.757	2.612	2.517	2.449	2.398	2.359	2.303	2.249	2.197	2.167	2.147	2.123	2.109	2.081	2.056		98%
0.017	0.034	18.71	5.284	3.712	3.166	2.895	2.734	2.628	2.553	2.498	2.454	2.392	2.333	2.276	2.243	2.222	2.195	2.180	2.150	2.123		
0.015	0.03	21.21	5.643	3.896	3.298	3.003	2.829	2.715	2.634	2.574	2.527	2.461	2.397	2.336	2.301	2.278	2.250	2.234	2.202	2.173		
0.012	0.024	26.51	6.338	4.241	3.541	3.200	3.000	2.870	2.778	2.710	2.658	2.582	2.511	2.442	2.403	2.378	2.346	2.328	2.292	2.261		
0.01	0.02	31.82	6.965	4.541	3.747	3.365	3.143	2.998	2.896	2.821	2.764	2.681	2.602	2.528	2.485	2.457	2.423	2.403	2.364	2.330	98%	99%
0.007	0.014	45.47	8.363	5.175	4.173	3.700	3.428	3.253	3.131	3.041	2.972	2.873	2.781	2.693	2.642	2.610	2.570	2.547	2.501	2.462		
0.005	0.01	63.65	9.925	5.841	4.604	4.032	3.707	3.499	3.355	3.250	3.169	3.055	2.947	2.845	2.787	2.750	2.704	2.678	2.626	2.581	99%	99.5%
0.003	0.006	106.1	12.85	6.994	5.321	4.570	4.152	3.887	3.705	3.573	3.472	3.330	3.197	3.073	3.003	2.957	2.902	2.870	2.808	2.754		
0.002	0.004	159.2	15.76	8.053	5.951	5.030	4.524	4.207	3.991	3.835	3.716	3.550	3.395	3.251	3.170	3.118	3.055	3.018	2.946	2.885		
0.001	0.002	318.3	22.32	10.21	7.173	5.893	5.208	4.785	4.501	4.297	4.144	3.930	3.733	3.552	3.450	3.385	3.307	3.261	3.174	3.098	99.8%	99.9%
.0005	0.001	636.6	31.59	12.92	8.610	6.869	5.959	5.408	5.041	4.781	4.587	4.318	4.073	3.850	3.725	3.646	3.551	3.496	3.391	3.300	99.9%	99.95%
.0001	.0002	3183	70.70	22.20	13.03	9.678	8.025	7.063	6.442	6.010	5.694	5.263	4.880	4.539	4.352	4.234	4.094	4.014	3.862	3.733	99.99%	
5e-5	.0001	6366	99.98	27.99	15.54	11.18	9.082	7.884	7.120	6.594	6.210	5.694	5.239	4.837	4.620	4.482	4.320	4.228	4.053	3.906		

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