

**First Line of Title**  
**Second Line of Title**  
**Third Line of Title**

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Received: Feb. 29, 1900; Accepted: Feb. 29, 1900

## **Abstract**

Your abstract should be a summary of the paper. This section should be between 150 and 250 words. There should be no reference citations in this section, and there should be no formulas in this section.

**Keywords:** Mathematical keywords; Mathematical phrases; Separated by semicolons

**MSC 2010 No.:** add MSC codes here, separated by commas

## **1. Introduction**

In this section, this is where you get to introduce your work. You can use this section to lay the groundwork for what this paper will discuss. The purpose of your paper can be explained in this section, and you can include the methodology in this section as well.

More to the point, in this section you should not include any formulas.

Pay special notice to the citation formatting. If you want to cite a document, use the commands specified in the comments located near the REFERENCES section in the AAM document template to format your references. For your convenience in creating citations, you can use

- `\cite` for citing the author and year as follows: `\cite{Ha-Mi-stepwise}` will produce (Haghighi et al. (2016a))

- `\citenop` for citing the author and year with no parentheses as follows: `\citenop{Ha-Mi-stepwise}` will produce Haghghi et al. (2016a)
- `\citeauthor` to cite only the author's name for your citation: `\citeauthor{Ha-Mi-stepwise}` will produce Haghghi et al.
- `\citeyear` to cite only the year of the article for your citation: `\citeyear{Ha-Mi-stepwise}` will produce 2016a
- `\cite{Gl, Ha}` can be used to cite more than one reference in a single set: `\cite{Gl, Ha}` will produce (Glaiser (1872); Haghghi et al. (2006))

Please pay attention to when parentheses should be used around your citation. For example, there has been work done evaluating student performance in statistics classes where Polya's method was used (Wickramasinghe and Valles (2015)). Rosenthal (1998) advocates for teaching statistics using a simple margin-of-error formula, thus allowing students to learn statistics without memorizing many different equations.

## 2. Math Equations

For mathematical equations, it is highly recommended you use proper formatting. You can use the code `\begin{equation}` `\end{equation}` to create an equation with a number, like so:

$$a^2 + b^2 = c^2. \quad (1)$$

You can also use `\begin{equation*}` `\end{equation*}` to create an equation or expression without a number, such as:

$$33 = 8866128975287528^3 + (-8778405442862239)^3 + (-2736111468807040)^3.$$

Of course, you can always put an equation or inequality inline, if you need to. For example, the Euler-Mascheroni constant  $\gamma = 0.57721566\dots$  may need to be mentioned but may not need its own line in your work.

According to AAM Author Guidelines, multiline equations should be grouped no more than two lines per block. Thus, if you have a series of equations requiring more than two lines, set up separate groups as necessary.

If you need to align multiple lines in an equation, you can use `\begin{equation}\begin{aligned}` `\end{aligned}\end{equation}` to create something like this:

$$\begin{aligned} \cos 2\theta &= \cos^2 \theta - \sin^2 \theta \\ &= 2 \cos^2 \theta - 1 \\ &= 1 - 2 \sin^2 \theta. \end{aligned} \quad (2)$$

Notice that this group has one equation label number assigned to it, representing the whole group.

Similarly, if you do not need an equation number label, you can use `\begin{equation*}\begin{aligned} \end{aligned}\end{equation*}` to product something like this:

$$\begin{aligned} 567 &= 8^3 + 3^3 + 3^3 + 1^3 \\ &= 7^3 + 6^3 + 2^3 \end{aligned}$$

Make sure you use the `&` symbol to control where the alignment occurs.

A good summary of  $\LaTeX$  equation commands can be found at <https://www.impan.pl/wydawnictwa/dla-autorow/formulas.pdf>. You are encouraged, though, to not use `eqnarray`.

### 3. Types of Theorem Labels

Make sure that you pay proper notice to the coding necessary to format Lemma, Theorems, Corollaries and other theorem-style statements. A list of these can be found in the comments of the AAM document template.

In particular, the AAM class file has a number of theorem-style headings already created. These are as follows:

- For Lemmas, use `\begin{lem} body of lemma \end{lem}`
- For Theorems, use `\begin{thm} body of theorem \end{thm}`
- For Corollaries, use `\begin{coro} body of corollary \end{coro}`
- For Propositions, use `\begin{prop} body of proposition \end{prop}`
- For Examples, use `\begin{example} body of example \end{example}`
- For Remarks, use `\begin{remark} body of remark \end{remark}`
- For Notes, use `\begin{note} body of remark \end{note}`
- For Cases, use `\begin{case} body of remark \end{case}`

Examples of the above-mentioned now follow. We will start with examples of theorems.

#### **Theorem 3.1.**

That which can be proven true is true.

If you need a theorem title, you can produce the theorem title below using the code `\begin{thm}[theorem name here]` to create the title text. This is helpful for titles or if you need to include a citation for the theorem.

**Theorem 3.2. (The Soul Stone Paradox)**

In order to possess the Soul Stone, you must sacrifice what you love most. But if you sacrifice it, you do not love it most. Thus, you can never possess the Soul Stone.

We will now introduce some other theorem-style environments.

**Remark 3.3.**

I like to keep my remarks pithy, but you can write your remarks as best suits your needs.

**Example 3.4.**

The numbers 3, 4, and 5 are what is referred to as a “Pythagorean Triple.”

**Lemma 3.5.**

If you read before you go to class, you will perform better in class.

***Proof:***

I don’t have facts to back this up, but I know it is true. ■

**Note 3.6.**

Here is where I would put a comment that I feel is worth mentioning, but not to the level of being a Remark.

**Case 3.7.**

This is a specific case that is worth examining.

These are the most commonly invoked theorem environments used.

## 4. Tables and Figures

For typesetting tables, note that the caption should go above the table. The generic code for an example table is provided in the template document as a comment. One such example is as follows.

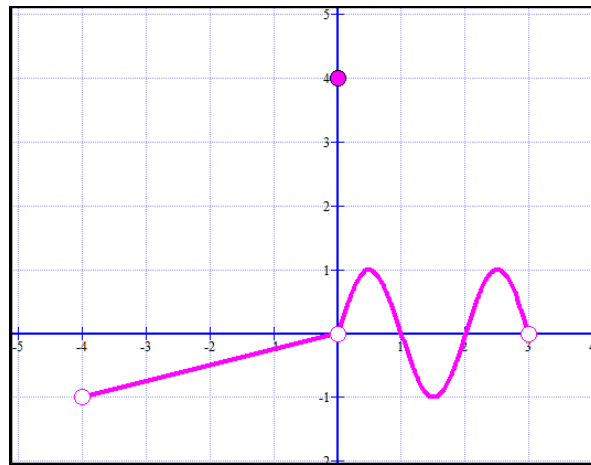
For a figure, the caption should go below the figure. The generic code for a figure is provided in the template document, and it is captioned.

## 5. Conclusion

The Conclusion is not a summary of the paper. Here you would state results of your findings, challenges you encountered or expect to encounter in future work, or unsolved problems that arise

**Table 1.** Write desired caption here.

Case	Method #1	Method #2	Method #3
1	50	837	970
2	47	877	230
3	31	25	415
4	35	144	2356
5	45	300	556

**Figure 1.** I created this graph in hopes of using it in a Calculus I class someday. That day, however, is still in the future.

from your work or are related to the work in your article.

### ***Acknowledgment:***

*In this section, this is where you can state your acknowledgment, once the paper is accepted for publication.*

## **REFERENCES**

- Haghighi, A.M. and Mishev, D.P. (2016). Stepwise explicit solution for the joint distribution of queue length of a MAP single-server service queueing system with splitting and varying batch size delayed feedback, *Int. J. Mathematics in Operational Research*, Vol. 9, No. 1, pp. 39–64
- Haghighi, A.M. and Mishev, D.P. (2016). *Delayed and Network Queues*, Wiley and Sons, New Jersey.
- Haghighi, A.M., Vakil, R. and Wetiba, J.K. (2006). Reverse-traditional/Hands-on: An alternative

- method of teaching statistics, *Applications and Applied Mathematics: An International Journal*, Vol. 1, No. 1, pp. 61–81.
- Glaisher, J.W.L. (1872). On the history of Euler’s constant, *Messenger Math.*, Vol. 1, pp. 25–30.
- Lian, J.-A. (1998). Orthogonality criteria for multi-scaling functions, *Applied and Computational Harmonic Analysis*, Vol. 5, Issue 3, pp. 277–311.
- Ray, A. (2012). A Representation of Chaocipher (Master’s thesis). Retrieved from <https://ttu-ir.tdl.org/bitstream/handle/2346/46988/RAY-THESIS.pdf?sequence=1&isAllowed=y>
- Rosenthal, J.S. (2018) Statistics using just one formula, *TEST*, Vol. 40, pp. 7–11. doi:10.1111/test.12142
- Wickramasinghe, R.I.P. (2017). Attribute Noise, Classification Technique, and Classification Accuracy. In *Data Analytics and Decision Support for Cybersecurity: Trends, Methodologies and Applications* (Iván Palomares Carrascosa, Harsha Kumara Kaluturage, and Yan Huang, Editors), pp. 201–220, Springer International Publishing. <https://doi.org/10.1007/978-3-319-59439-2>
- Wickramasinghe, I. and Valles, J. (2015). Can we use Polya’s method to improve students’ performance in the statistics classes?, *Numeracy*, Vol. 8, No. 1, Article 12. <http://dx.doi.org/10.5038/1936-4660.8.1.12>

## Appendix

This section can be used for additional information. For this example document, we will use this section to illustrate how to format some of the more common references. Note that the title of the article should have only the first letter of the first word capitalized. Also, please note the following:

- (i) Please follow the formatting guidelines stated here.
- (ii) References need to be alphabetized appropriately. For a detailed explanation of how to order references, you are urged to consult <http://writeanswers.royalroads.ca/faq/199121>.
- (iii) Article titles should not be italicized. The first word of the article title, as well as any proper nouns, should be the only capitalized words.
- (iv) For book titles, the first letter of words that are not articles or conjunctions should be capitalized, and the book title should be in italics.
- (v) Journal titles should not be italicized.
- (vi) For journal volume, number and page numbers, format as **Vol. xx, No. yy, pp. aa - bb**.

A number of different types of publications are used in the References section of this guide.

For an article from a journal, use the following as a template:

```
\bibitem[\protect\citeauthoryear{Lian}{1998}]{Lian}
Lian, J.-A. (1998). Orthogonality criteria for multi-scaling functions,
Applied and Computational Harmonic Analysis, Vol. 5, Issue 3,
pp. 277--311.
```

**For an article from a journal with a DOI, use the following as a template:**

```
\bibitem[\protect\citeauthoryear{Wickramasinghe and Valles}{2015}]{WV}
Wickramasinghe, I. and Valles, J. (2015). Can we use Polya's
method to improve students' performance in the statistics classes?,
Numeracy, Vol. 8, No. 1, Article 12.
http://dx.doi.org/10.5038/1936-4660.8.1.12
```

**For a chapter in a book, use the following as a template:**

```
\bibitem[\protect\citeauthoryear{Wickramasinghe}{2017}]{Wi}
Wickramasinghe, R.I.P. (2017). Attribute Noise, Classification
Technique, and Classification Accuracy. In \emph{Data Analytics
and Decision Support for Cybersecurity: Trends, Methodologies
and Applications} (Iv\{a}n Palomares Carrascosa,
Harsha Kumara Kalutarage, and Yan Huang,
Editors), pp. 201--220, Springer International
Publishing. https://doi.org/10.1007/978-3-319-59439-2
```

**For a book with one author, use the following:**

```
\bibitem[\protect\citeauthoryear{Haghighi}{1976}]{AMH}
Haghighi, A.M. (1976). \emph{Theory of Functions of a Complex
Variable} (3rd edition), Institute of Statistics
and Informatics, Tehran, Iran.
```

**For a book with two authors, use the following:**

```
\bibitem[\protect\citeauthoryear{Hritonenko and Yatsenko}{2003}]{HY}
Hritonenko, N. and Yatsenko, Y. (2003). \emph{Applied
Mathematical Modelling of Engineering Problems}, Springer US, New York.
```

**For a book with three authors, use the following:**

```
\bibitem[\protect\citeauthoryear{Haghighi et al.}{2011}]{HLM}
Haghighi, A.M., Lian, J.-A. and Mishev, M.P. (2011). \emph{Advance
Mathematics for Engineers with Applications in
Stochastic Processes} (revised edition), Nova Science
Publishers, Inc., New York, NY.
```