

# IMA Preparation

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## 1 Introduction

This is the introduction to your paper.

## 2 Mathematical Equations

Here are some sample mathematical equations:

### 2.1 Pythagorean Theorem

The Pythagorean theorem is a fundamental relation in Euclidean geometry:

$$a^2 + b^2 = c^2 \tag{1}$$

### 2.2 Quadratic Formula

The solutions to the quadratic equation  $ax^2 + bx + c = 0$  are given by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{2}$$

### 2.3 Probability Density Function

The probability density function (PDF) for a continuous random variable is represented as:

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}} \tag{3}$$

## 3 Conclusion

This is the conclusion of your paper.