

## ✔ Congratulations! You passed!

Grade received 100%

Latest Submission Grade 100%

To pass 80% or higher

**Go to next item**

1. What percentage of the area under a PDF is given by 1 standard deviation on either side of the Normal distribution? **1 / 1 point**

☒ 68.27%

☐ 75%

☒ **Correct**
2. What percentage of the area under a PDF is given by 2 standard deviation on either side of the Normal distribution? **1 / 1 point**

☒ 95.45%

☐ 97.45%

☒ **Correct**
3. Which of the following distributions has the maximum entropy given a certain mean and variance? **1 / 1 point**

☒ Normal

☐ Student's t-distribution

☒ **Correct**

4. The Beta distribution is the conjugate prior of

1 / 1 point

- ☒ Binomial distribution
- ☐ Exponential distribution

☒ Correct

5. In a Poisson distribution, the mean and variance are given by the same parameter

1 / 1 point

- ☒ True
- ☐ False

☒ Correct

6. The exponential distribution can be used to model the length of events

1 / 1 point

- ☒ True
- ☐ False

☒ Correct

7. A Student's t-distribution is less robust to outliers compared to a Normal distribution.

1 / 1 point

- ☐ True
- ☒ False

☒ Correct

8. X can be considered a lognormal distribution if the log of X is normally distributed

1 / 1 point

- ☒ True
- ☐ False

✓ **Correct**

9. The binomial distribution can be used to describe the number of successes 'p' in 'n' total events

**1 / 1 point**

☒ True

☐ False

✓ **Correct**