

# Math 262 Reading Guide

Section 3.4.1

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NAME

Read Section 3.4.1 and answer the following questions. *Hand in this worksheet at the next class.*

1. What is the definition of the **exponential distribution**? Sketch a graph of its pdf.
2. What is another way of writing the exponential pdf, using the parameter  $\beta$ ?
3. If  $X$  is an exponential random variable with parameter  $\lambda$ , what are the mean and standard deviation of  $X$ ?
4. What are some things that are modeled by an exponential distribution?
5. What does the **memoryless property** say about the exponential distribution?