

Name: _____

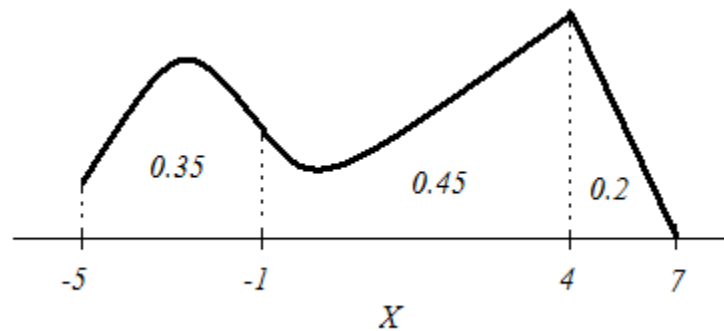
Math 130

Date: 3/12/2025

Quiz 9

1. (2 points) State the requirements for a density curve (for a continuous random variable).

2. (3 points) Suppose X is a random variable with the density curve drawn below.



a) What are the possible values of X ?

b) What is $P(X = 4)$?

c) What is $P(-7 \leq X \leq 4)$?

3. (2 points) Suppose X is uniformly distributed over the interval $[2, 17]$.

a) Find c that makes this a probability density.

b) Find $P(11 \leq X \leq 15)$

4. (3 points) Suppose Z has a standard normal distribution.

a) What are the possible values for Z ?

b) What is the mean μ of Z ?

c) What is the standard deviation σ of Z ?