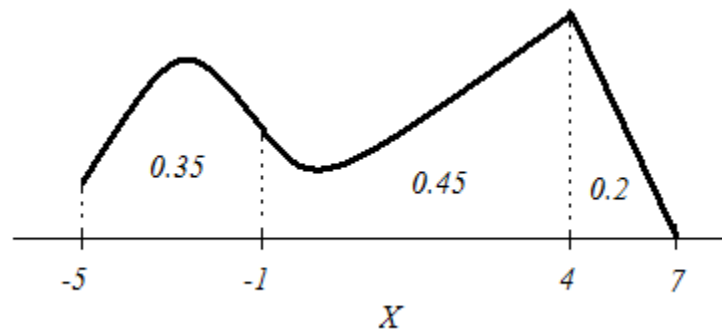1. (2 points) State the requirements for a density curve (for a continuous random variable).

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 $P(11 \le X \le 15)$

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?