

Math 13 Chapter 5 Overview Problems

1) Given the distribution

X	P(X)
1	0.3
2	0.1
3	0.2
4	0.1
5	0.3

a) Is this a probability distribution? Explain.

b) Find the mean for the random variable X.

c) Find the standard deviation for the random variable X.

2) It is a fact that 10.6% of teens smoke cigarettes. Suppose that a group of 20 teens were chosen at random.

a) Find the probability that exactly 3 of those teens smoke.

b) Find the probability that at least 3 of those teens smoke.

3) A couple wants to have 5 kids. Let X be the number of boys they will have. Create the probability distribution table for X .

4) It is a fact that 24% of men in the US are six feet tall or taller. Suppose that 400 US men were chosen at random. Let X be the number of men in the US are six feet tall or taller.

a) Find the mean and standard deviation for X .

b) Would it be considered unusual if 150 of the men were six feet tall or taller.