Quiz Ch6 #2 “AP Stats”

**Multiple Choice**

1. There are 1,057 girls and 987 boys at Rancho this year. If 38% of the boys and 26% of the girls participate in athletics, what is the expected number of students that participate in athletics in a simple random sample of 50 students?

1. 11.7
2. 9.8
3. 15.6
4. 15.9
5. 8.3

2. Suppose we have a binomial random variable where the probability of exactly 6 successes is .

What is the mean and standard deviation?

1. 1.98, 13.49
2. .29, 19
3. 13.49, 1.98
4. 5.51, 1.98
5. There is not enough information provided

3. Which of the following is a binomial setting?

1. The number of rainy days in a given week
2. The number of tails in 10 tosses of an unfair coin where tails appear twice as often as heads.
3. The number of hits in 4 at-bats where the probability of a hit is .279 or .314 depending on whether you are batting right handed or left-handed.
4. The number of rolls of a die before a five appears on two consecutive rolls
5. All the above are binomial

NAME:

4. According to one poll, only 6 percent of the population of Whoville said they “believed that the Grinch has a heart.” In a random sample of 18 people, what is the probability that at least two people says, “they believe that the Grinch has a heart”?

a. 1 - .9418

b. .9418

c. 1 – (.06)18

d. 

e. 

5. Suppose 74 percent of the students at Rancho agree with the statement, “Late Start Days are awesome”. In a sample of 14 people, what is the probability more than half agree with the statement?

1. .0467
2. .9533
3. .0335
4. .9665
5. There is not enough information to answer this