Name _____   Period _____

Binomial Distributions Questions

A free-throw shooter has a 70% average for making free-throws. Out of 20 attempts, find the following probabilities:

1. P(10 makes)

2. P(at least 10 makes)

    skip

3. P(17 makes)

4. P(at most 17 makes)

    skip

5. P(20 makes)

6. P(5 makes)

7. P(16 or more makes)

8. P(11 makes)

9. P(at most 11 makes

skip

10. P(at least 11 makes)

skip

11. P(between 12 to 17 makes)

skip

12. P(from 12 to 17 makes inclusive)

skip

12.   How many free-throws do you expect this shooter to make?

13.   If the probability that a light bulb is defective is .1, what is the probability that exactly 3 of 8 light bulbs are defective? At **most** 3 of 8 are defective?

14.   Suppose that 30% of employees in a large factory are smokers. What is the probability that there will be exactly two smokers in a randomly chosen five-person work group?
At **least** 2 smokers in the same group?

4