

## 6C Cumulative Probabilities on The Binomial Distribution

1. The random variable  $X \sim B(20, 0.4)$ . Find:

a)  $P(X \leq 7)$

b)  $P(X < 6)$

c)  $P(X \geq 15)$

2. A spinner is designed so that the probability it lands on red is 0.3. Jane has 12 spins. Find the probability that Jane obtains:

a) No more than 2 reds

b) At least 5 reds

3. Jane decides to use this spinner for a class competition. She wants the probability of winning a prize to be less than 0.05. Each member of the class has 12 spins and the number of reds is recorded.

Find how many reds should be needed to win a prize