**6C Cumulative Probabilities on The Binomial Distribution**

1. The random variable $X\~B(20, 0.4)$. Find:
2. $P\left(X\leq 7\right)$
3. $P(X<6)$
4. $P(X\geq 15)$
5. 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:
6. No more than 2 reds
7. At least 5 reds
8. 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