Cumulative means "running total" so "cumulative probability" means "running total of probabilities" or \( P(X \leq n) \).

\[
X \sim B(20, 0.3)
\]

\[
P(X \leq 10) = 0.9829
\]

The random variable \( X \sim B(20, 0.35) \). Find:

a. \( P(X \leq 10) \)

b. \( P(X > 6) \)

c. \( P(X = 5) \)

d. \( P(2 \leq X \leq 7) \)

\[
P(X > 6) = 1 - P(X \leq 6)
\]

Do want 7, 8, 9, ...
Don't want 6, 5, 4 ...

Main point: If given any inequality that is not \( \leq \) we must find a calculation with the same answer that does involve \( \leq \)
\( t = 2 \times 0.60103 \times 10^{-3} = 0.5989 \)