

A2.S.15: Binomial Probability 4: Know and apply the binomial probability formula to events involving the terms exactly, at least, and at most

- 1 In a game of chance, the probability of winning is $\frac{1}{4}$ and the probability of losing is $\frac{3}{4}$. If four games are played, the probability of winning *exactly* three games is
- 2 The probability that Laura wins a tennis match against Jennifer is $\frac{2}{3}$. What is the probability that Laura wins *exactly* three of the next four matches she plays against Jennifer?
- 3 The probability of rolling exactly three 4's in five rolls of a fair dice is
- 4 The probability of hitting a target is $\frac{3}{4}$. What is the probability of hitting the target *exactly* once in four tries?
- 5 The probability of winning a game is $\frac{3}{5}$, then the probability of winning exactly 3 games out of 4 played is
- 6 If the probability that Mike will successfully complete a foul shot is $\frac{4}{5}$, what is the probability that he will successfully complete exactly three of his next four foul shots?
- 7 In basketball, Nicole makes 4 baskets for every 10 shots. If she takes 3 shots, what is the probability that *exactly* 2 of them will be baskets?

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Answer Section

1 ANS:

$$\frac{3}{64}$$

PTS: 2

REF: 068434siii

2 ANS:

$$\frac{32}{81}$$

PTS: 2

REF: 010421siii

3 ANS:

$$\frac{250}{7776}$$

PTS: 2

REF: 019430siii

4 ANS:

$$\frac{12}{256}$$

PTS: 2

REF: 089426siii

5 ANS:

$$\frac{216}{625}$$

PTS: 2

REF: 019533siii

6 ANS:

$$\frac{256}{625}$$

PTS: 2

REF: 080024siii

7 ANS:

0.288

PTS: 2

REF: 089629siii