

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**Assume that each of the n trials is independent and that p is the probability of success on a given trial. Use the binomial probability formula to find $P(x)$. Round to four decimal places.**

1) $n = 10, x = 4, p = \frac{1}{6}$ 1) _____

- A) 0.0705 B) 0.0651 C) 0.0543 D) 0.0597

2) $n = 11, x = 9, p = 0.4$ 2) _____

- A) 0.0049 B) 0.0052 C) 0.0067 D) 0.0057

Find the probability.

3) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having exactly 2 girls and 3 boys? 3) _____

- A) 0.0312 B) 0.0625 C) 0.3125 D) 0.6252

4) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having no girls? 4) _____

- A) 0.0313 B) 0.0625 C) 0.3126 D) 0.1563

5) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having exactly 3 girls and 2 boys? 5) _____

- A) 0.3125 B) 0.6252 C) 0.0313 D) 0.0625

6) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having at least 4 girls? 6) _____

- A) 0.1563 B) 0.3125 C) 0.1875 D) 0.0313

7) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having at least 3 boys? 7) _____

- A) 0.4688 B) 0.3125 C) 0.1563 D) 0.5000

8) A family has five children. The probability of having a girl is $\frac{1}{2}$. What is the probability of having no more than 3 boys? 8) _____

- A) 0.9688 B) 0.5000 C) 0.8125 D) 0.3125

9) A die is rolled 20 times and the number of twos that come up is tallied. Find the probability of getting exactly four twos. 9) _____

- A) 0.083 B) 0.202 C) 0.075 D) 0.101

10) A die is rolled 20 times and the number of twos that come up is tallied. Find the probability of getting exactly two twos. 10) _____

- A) 0.198 B) 0.011 C) 0.116 D) 0.159

- 11) A die is rolled 20 times and the number of twos that come up is tallied. Find the probability of getting more than three twos. 11) _____
 A) 0.403 B) 0.564 C) 0.905 D) 0.433
- 12) A die is rolled 20 times and the number of twos that come up is tallied. Find the probability of getting exactly five twos. 12) _____
 A) 0.921 B) 0.129 C) 0.083 D) 0.003
- 13) A child rolls a 6-sided die 6 times. What is the probability of the child rolling exactly four fives? 13) _____
 A) 0.5360 B) 0.0080 C) 0.3125 D) 0.9688
- 14) A child rolls a 6-sided die 6 times. What is the probability of the child rolling exactly three sixes? 14) _____
 A) 0.5362 B) 0.0594 C) 0.0536 D) 0.4441
- 15) A child rolls a 6-sided die 6 times. What is the probability of the child rolling exactly two fours? 15) _____
 A) 0.5681 B) 0.7182 C) 0.2009 D) 0.0621
- 16) A child rolls a 6-sided die 6 times. What is the probability of the child rolling no more than three twos? 16) _____
 A) 0.9913 B) 0.9649 C) 0.6774 D) 0.3812
- 17) What is the probability that 6 rolls of a fair die will show three threes? 17) _____
 A) 0.0107 B) 0.0268 C) 0.0536 D) 0.1072
- 18) What is the probability that 20 rolls of a fair die will show 4 twos? 18) _____
 A) 0.1011 B) 0.0404 C) 0.4044 D) 0.2022

Solve the problem.

- 19) A fair coin is tossed 5 times. What is the probability of no heads? 19) _____
 A) 0.0313 B) 0 C) 0.9688 D) 0.0625
- 20) A fair coin is tossed 5 times. What is the probability of exactly 3 head(s)? 20) _____
 A) 0.1250 B) 0.3125 C) 0.0313 D) 0.0625
- 21) What is the probability that 16 tosses of a fair coin will show 10 heads? 21) _____
 A) 0.1222 B) 0.0244 C) 0.0611 D) 0.2444
- 22) A coin is biased to show 39% heads and 61% tails. The coin is tossed twice. What is the probability that the coin turns up tails on both tosses? 22) _____
 A) 0.39 B) 0.22 C) 0.61 D) 0.3721
- 23) A coin is biased to show 41% heads and 59% tails. The coin is tossed twice. What is the probability that the coin turns up heads once and tails once? 23) _____
 A) 0.59 B) 0.4838 C) 0.41 D) 0.2419
- 24) A coin is biased to show 39% heads and 61% tails. The coin is tossed twice. What is the probability that the coin turns up heads on the second toss? 24) _____
 A) 0.39 B) 0.2379 C) 0.1521 D) 0.61