

Probability and Statistics Review

Find the mean median, mode and range of each set of numbers.

1. 25, 30, 30, 47, 28

Find the missing number that makes the given mean.

2. 31.7, 42.8, 26.4, x ; mean 35

Use the given spinner to calculate the probability.

3. $P(\text{not landing on 4})$
4. $P(\text{landing on a number greater than 2})$



You roll a number cube. Calculate the odds for each situation.

5. Odds in favor of rolling a 2
6. Odds against rolling a number less than 5

Find the probability of the given situation.

7. You pick two marbles out of a bag containing 3 purple, 6 magenta, and 5 cerulean. What is the probability of pulling a purple marble then a cerulean marble if you do not replace the first marble? What is the probability of pulling a purple marble then a cerulean marble if you replace the first marble?

8. You are taking a multiple choice quiz with 4 options. You guess on all five questions. What is the probability that you get all five correct?

9. There are 4 meat and 5 veggies options for pizzas. How many different pizzas can you order if you can only have 1 meat and 1 veggie?

10. Seven people are sitting around a table. In how many different ways can they arrange themselves?

11. There are 12 athletes competing at an event. How many different ways can they finish?

18. How many ways can you assign 5 positions from your basketball team with 12 players?

19. A group of 23 professionals has a leadership team of 4 people. How many different combinations of the team can be made?

20. A business makes 13 different types of cookies. If they make orders with 5 cookies in a basket, how many different combinations can be made without repeating a cookie?

Simplify each expression.

21. ${}_{12}P_5$

22. ${}_{17}P_3$

23. ${}_{11}C_4$

24. ${}_7C_5$