

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Calculate  $P(8, 5)$  1) \_\_\_\_\_

2) Calculate  $C(7, 4)$ . 2) \_\_\_\_\_

3) Calculate  $P(12, 3)$  3) \_\_\_\_\_

4) Calculate  $C(12, 3)$ . 4) \_\_\_\_\_

Solve the problem.

5) How many different selections of three newspapers can be made from a set of 10 newspapers? 5) \_\_\_\_\_

6) In a local election, there are eight candidates running for five positions as judges on the Supreme Bench. What is the number of possible outcomes of the election? 6) \_\_\_\_\_

7) How many two-letter combinations can be made from the letters in the set  $\{a, b, c, d\}$ ? List all of them. 7) \_\_\_\_\_

8) How many different lines can 6 people form? 8) \_\_\_\_\_

9) In how many ways can a three-member committee be selected from seven people? 9) \_\_\_\_\_

10) How many ways can 7 of 10 books be arranged on a shelf? 10) \_\_\_\_\_

11) A pizza parlor offers five toppings on its pizza. How many different pizzas are there with three or four toppings? 11) \_\_\_\_\_

12) How many permutations are there of the letters in the word "CATS" taken three at a time. 12) \_\_\_\_\_

13) In how many different ways can a student choose six questions to answer from a test with eight different questions? 13) \_\_\_\_\_