

17) What are the odds of choosing a vowel?

18) What are the odds of choosing an N?

19) What are the odds of not choosing an S, T, E, or M?

Solve.

20) In a bag of 56 chocolate candies, 21 are green. What are the odds of choosing a green candy?

Evaluate.

21) $7!$

22) $12! \div 9!$

23) $5!2!$

Find each permutation given n and r.

24) $n = 6; r = 2$

25) $n = 9; r = 4$

26) $n = 14; r = 7$

27) $n = 8; r = 3$

28) $n = 11; r = 7$

29) $n = 7 \quad r = 6$

30) $n = 12 \quad r = 3$

Find each combination given n and r.

31) $n = 18; r = 4$

32) $n = 12; r = 3$

33) $n = 17; r = 5$

34) $n = 6 \quad r = 1$

35) $n = 18 \quad r = 4$

36) $n = 11 \quad r = 7$

37) $n = 9 \quad r = 4$

Solve using a permutation or a combination.

38) Kindergarten students each bring in 12 books to share with the class. In how many ways can the teacher choose 4 books to read at storytime on Monday?

39) Darryl chooses 9 CDs to play at random at his party. If there is time for 5 CDs to play, how many different arrangements of CDs might play?

40) In how many ways can an ice cream topping be chosen from a list of 18?

41) How many bracelets with precious stones in clusters of 4 can be formed using 12 different stones?

Answers to Study Guide Test 10 Probability

- 1) $\frac{1}{6}$ or about 17% 2) $\frac{1}{2}$ or 50% 3) $\frac{6}{6} = 1$ or 100% 4) $\frac{3}{6} = \frac{1}{2}$ or 50%
- 5) $100 - 74 = 26\%$ 6) $\frac{5}{26} = 0.19231 = \text{about } 19.2\%$ 7) $\frac{1}{26} = 0.03846 = \text{about } 3.8\%$
- 8) $\frac{21}{26} = 0.80769 = \text{about } 80.8\%$ 9) $\frac{4}{26} = 0.15385 = \text{about } 15.4\%$ 10) $\frac{3}{26} = 0.11538 = \text{about } 11.5\%$
- 11) 27 possibilities 12) 18 possibilities 13) 15 groups 14) 10 pairs
- 15) 10:1 16) 2:9 17) 4:7 18) 0:11
- 19) 5:6 20) 21:35 21) 5040 22) 1320
- 23) 240 24) 30 25) 3024 26) 17,297,280
- 27) 336 28) 1,663,200 29) 5040 30) 1320
- 31) 3060 32) 220 33) 6188 34) 6
- 35) 3060 36) 330 37) 126 38) 495 ways
- 39) 15,120 ways 40) 816 ways 41) 11,880 bracelets