

**Section 10-1 to 10-3 Review**

1. Hiro is in the bowling club. There are 34 students in the club. Five of them will be picked at random to attend an awards banquet. What is the probability that Hiro will *not* be randomly chosen to attend the banquet?

- [A]  $\frac{29}{34}$                       [B]  $\frac{34}{5}$                       [C]  $\frac{34}{29}$                       [D]  $\frac{5}{34}$

[1] \_\_\_\_\_

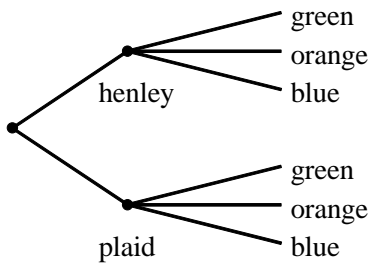
2. A spinner is evenly divided into 8 equal areas and numbered from 1 through 8. What is the probability of spinning a number less than 3 in a single spin?

- [A]  $\frac{5}{8}$                       [B]  $\frac{3}{8}$                       [C]  $\frac{1}{4}$                       [D]  $\frac{3}{4}$

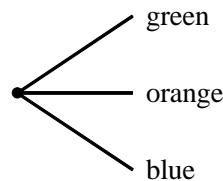
[2] \_\_\_\_\_

3. Mary went to the mall to buy a shirt for a friend. Her choices for shirt style are plaid and henley. Both of the choices come in green, orange, and blue. Draw a tree diagram that represents her choices.

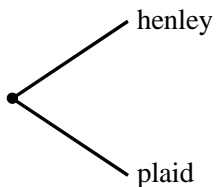
[A]



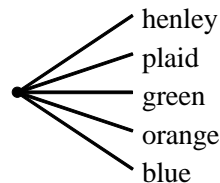
[B]



[C]



[D]



[3] \_\_\_\_\_

4. A lunch menu consists of 3 different kinds of sandwiches, 3 different kinds of soup, and 5 different drinks. How many choices are there for ordering a sandwich, a bowl of soup, and a drink?

- [A] 11                      [B] 45                      [C] 4,320                      [D] 3

[4] \_\_\_\_\_

5. How many different arrangements can be made using all of the letters in the word GRAPHICS?

- [A] 784                      [B] 64                      [C] 56                      [D] 40,320

[5] \_\_\_\_\_

6. Find:  ${}_6P_5$                       [A] 1440                      [B] 720                      [C] 11                      [D] 30

[6] \_\_\_\_\_

7. How many different ways can 4 people be seated around a circular table?

- [A] 3                      [B] 24                      [C] 6                      [D] 12

[7] \_\_\_\_\_

8. Evaluate:  ${}_9C_5$                       [A] 90                      [B] 4                      [C] 126                      [D] 15,120

[8] \_\_\_\_\_

9. Four cards are drawn in succession and without replacement from a standard deck of 52 cards. How many sets of four cards are possible?

- [A] 6,497,400                      [B] 270,725                      [C] 1,082,900                      [D] 54,145

[9] \_\_\_\_\_

10. How many distinct committees of 14 people can be formed if the people are drawn from a pool of 18 people? Use factorials to express the answer.

- [A]  ${}_{18}C_{14} = \frac{18!}{3! 14!}$                       [B]  ${}_{18}C_{13} = \frac{18!}{4! 13!}$                       [C]  ${}_{18}C_{14} = \frac{18!}{4! 14!}$                       [D]  ${}_{18}C_{15} = \frac{18!}{3! 15!}$

[10] \_\_\_\_\_

11. A hat contains 30 names, 8 of which are male. If eight names are randomly drawn from the hat, what is the probability that at least four male names are drawn?

- [A] 0.103                      [B] 0.897                      [C] 0.016                      [D] 0.984

[11] \_\_\_\_\_