

Category 1 Practice

1.

10
7.6E

The chart below shows the kinds of pizza ordered by customers in one day.

Pizza Type	Number Ordered
Pepperoni	36
Cheese	30
Supreme	28
Canadian Bacon	26

Based on the data in the table, what is the probability that a random customer will NOT order a cheese pizza?

A $\frac{1}{4}$
 B $\frac{2}{3}$
 C $\frac{3}{4}$
 D $\frac{1}{30}$

©Math at the Top

2.

16
7.6I

Lecia has different colored plates for her birthday party. She has 12 pink plates and 8 purple plates. Guests will randomly be given a plate when they arrive at the party.

What is the probability that the first guest to arrive will receive a purple plate?

A $\frac{1}{8}$
 B $\frac{2}{3}$
 C $\frac{1}{20}$
 D $\frac{2}{5}$

©Math at the Top

3.

18
7.6I

Mathias has a numbered cube with the numbers 1 through 6 on it. He also has a cube with the letters A, B, C, D, E, and F on it. Marcus will roll each die one time.

What is the probability that Marcus will roll an even number and the letter A?

A $\frac{1}{36}$
 B $\frac{1}{12}$
 C $\frac{1}{6}$
 D $\frac{7}{12}$

©Math at the Top

4.

2
7.2A

Matthew organized a set of numbers in the graphic organizer below. Which numbers did he put in the wrong spot?

A $-\frac{1}{8}$ and -4
 B $-\frac{1}{8}$, -4, and -3.5
 C 25%, -4, and -3.5
 D -4 and -3.5

©Math at the Top

5.

15
7.6I

Leroy has 2 bags of colored rocks. The first bag contains 3 red, 4 blue, and 6 yellow rocks. The second bag contains 1 red, 5 blue, and 3 yellow rocks. Leroy will randomly select a rock from each bag.

What is the probability that Leroy will select a red rock from both bags?

A $\frac{1}{39}$

B $\frac{3}{80}$

C $\frac{1}{117}$

D $\frac{4}{117}$

©Math at the Top

6.

11
7.6H

Jim buys 5 of the same brand bags of mixed chocolates at the store. He opens one bag and finds 3 truffles, 2 fruit creams, and 4 caramels.

Which statement about the 5 bags of chocolate Jim bought is best supported by this information?

A Jim will have a total of 5 vanilla creams.

B Jim will have about 5 total truffles.

C Jim will have about 10 total fruit creams.

D Jim will have 9 caramels.

©Math at the Top

7.

9
7.6E

DeAndre has a number cube that has the numbers 1 through 6 on the sides. What is the probability of DeAndre rolling a number greater than 2?

A

B

C

D

A. $\frac{1}{2}$

B. $\frac{2}{3}$

C. $\frac{1}{6}$

D. $\frac{3}{5}$

©Math at the Top

8.

19. A bag contains a total of 300 purple and yellow beads. Without looking, a student chooses a bead, records the color and places it back in the bag. The student records 9 purple beads and 16 yellow beads. What is the best prediction of the total number of yellow beads in the bag?

108

192

25

168

9.

17

7.6I

Kendra likes flavored waters. The chart below shows what flavors Kendra has in her refrigerator at home.

Flavor	How Many
Cherry	2
Lemon	4
Lime	2
Raspberry	4

Kendra will randomly choose a water and then put it back and choose another water. What is the probability that Kendra will choose a cherry and then a lime water?

A $\frac{4}{9}$

B $\frac{1}{18}$

C $\frac{1}{25}$

D $\frac{1}{36}$

©Math at the Top

10.

20. Cameron has two bags of marbles. Each bag contains 20 green marbles. Bag A contains 20 total marbles while bag B contains 40 total marbles. Which statement is a true statement?

A. The probability of randomly selecting a green marble from bag B is 1.

B. The probability of randomly selecting a green marble from bag B is greater than the probability of randomly selecting a green marble from bag A.

C. The probability of randomly selecting a green marble from bag A is equal to the probability of randomly selecting a green marble from bag B.

D. The probability of randomly selecting a green marble from bag A is greater than the probability of randomly selecting a green marble from bag B.

A

B

C

D

11.

6

7.6C

In the 7th grade at Western Middle School, 8 out of 14 students take a fine arts class. If there are 672 students in the 7th grade, how many take a fine arts class?

©Math at the Top

12.

12

7.6H

Mr. Graham has 2 packages of rubber bands. Package A has 30 rubber bands and package B has 10 rubber bands. Each package has exactly 6 red rubber bands. Which statement below is true?

- A The probability of randomly drawing a red rubber band from package A is the same as drawing one from package B.
- B The probability of randomly drawing a red rubber band from package A is greater than drawing one from package B.
- C The probability of randomly drawing a red rubber band from package A is less than drawing one from package B.
- D The probability of drawing a red rubber band from package A is 1.

©Math at the Top

13.

8
7.6D

Brooke has a bag candy. Inside the bag she has 4 strawberry candies, 2 lemon candies, 5 grape candies, and 1 cherry candy. If she draws one candy and replaces it 180 times, what would be a reasonable prediction for how many times she will draw lemon or grape?

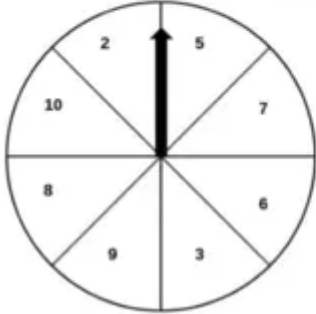
□

©Math at the Top

14.

7
7.6D

A spinner is shown below with eight equal sections. If you spin the spinner 144 times, what would be the best prediction of how many times you would land on a number greater than 5?



A. 90 A

B. 108 B

C. 29 C

D. 18 D

©Math at the Top

15.

1
7.2A

Set M represents rational numbers and Set N represents integers. Which diagram correctly organizes the numbers?

A B C

A.

B.

C.

©Math at the Top

16.

5
7.6C

There are 9,150 restaurants in a large city. Of those restaurants 12 out of every 60 is a pizza restaurant. How many restaurants are NOT pizza restaurants?

©Math at the Top

19.

4
7.6A

Cameron has a bag of gumballs. He has 4 red, 3 yellow, 1 blue, and 2 green. If Cameron picks 4 gumballs out of the bag at one time without looking, which could NOT be a possible combination that Cameron picked?

A. yellow, yellow, blue, green A

B. red, blue, green, blue B

C. blue, yellow, green, red C

D. blue, red, green, red D

©Math at the Top

20.

14
7.6H

Deedee has a bag of colored chips. The bag contains some red, blue, yellow, and green chips. Deedee gives the clues below to help her friend figure out what is inside the bag.

Clues Deedee Gave

- You are 2 times as likely to draw a red chip from the bag as a blue chip.
- You are equally likely to draw a green chip as you are to draw a blue or red combined.
- The probability of drawing a yellow chip is $\frac{1}{4}$.

Based on Deedee's clues, which of the following could be inside Deedee's bag?

A 2 red, 4 blue, 6 green, and 4 yellow

B 6 red, 3 blue, 9 green, and 6 yellow

C 4 red, 2 blue, 6 green, and 5 yellow

D 2 red, 2 blue, 4 green, and 4 yellow

©Math at the Top