

Date: _____

Name: _____

Class: _____

1 What mathematical operation do ratios involve?

- A** Multiplication
- B** Division
- C** Addition
- D** Subtraction

2 When are ratios useful? Choose the best answer.

- A** When you want to divide one number by another
- B** When you're cleaning your kitchen floor
- C** When you want to compare a part of something to the whole
- D** When you want to figure out the probability that an event will happen

3 Which of the following expresses a ratio?

- A** $2/3$
- B** Two-thirds
- C** 0.667
- D** 2.3

4 Which ratio is equivalent to $3/4$?

- A** $4/3$
- B** 3.4
- C** 0.75
- D** $6/8$

5 What does the ratio $75/25$ reduce to?

- A** $1/3$
- B** $3/1$
- C** $9/10$
- D** $4/1$

6 If there are 10 apples in the fridge and 7 on the table, what is the ratio of apples in the fridge to apples on the table?

- A** $10/7$
- B** $7/10$
- C** 0.7
- D** $10/17$

7 A recipe calls for 3 parts water to 1 part milk. How much milk will you need if you use 12 mL of water?

- A** 3 mL
- B** 4 mL
- C** 9 mL
- D** 10 mL

8 A recipe says, "1 part cocoa to 4 parts sugar." How much sugar will you need if you use 20 grams of cocoa?

- A** 20 grams of sugar
- B** 40 grams of sugar
- C** 120 grams of sugar
- D** 80 grams of sugar

9 If there are 10 apples in the fridge and 7 on the table, what is the ratio of apples in the fridge to all the apples?

- A** $7/10$
- B** $10/7$
- C** $10/17$
- D** $17/10$

10 A recipe says, "3 parts water to 1 part milk." How much water will you need if you use 2 liters of milk?

- A** 6 liters
- B** 1 liter
- C** 3 liters
- D** 2 liters

Brain POP[®] PROPORTIONS

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1 What two products do you get when you cross-multiply the fractions $\frac{2}{5}$ and $\frac{3}{8}$?

- A 10 and 24
- B 6 and 40
- C 16 and 15
- D 3 and 5

2 What is the solution to the proportion $a/b = c/d$?

- A $ac = bd$
- B $ab = cd$
- C $ad = cb$
- D $ac = bc$

3 What is the value of y if $5/25 = y/5$?

- A 25
- B 15
- C 10
- D 1

4 2 cm on a map are equal to 3 km in real life. If two points are 8 cm apart on the map, how far apart are they in real life?

- A 24 km
- B 12 km
- C 20 km
- D 15 km

5 You're baking a batch of 12 cupcakes. Each batch requires 100 grams of butter. Which proportion shows how much butter there is in each cupcake?

- A $1/12 = x/100$
- B $1/100 = x/12$
- C $x/12 = 100/1$
- D $12/1 = x/100$

6 100 birthday candles in 5 bags is proportional to 300 candles in how many bags?

- A 50
- B 30
- C 15
- D 10

7 If 3 kg of beans cost \$1.50, how much does two kg cost?

- A 50 cents
- B 75 cents
- C One dollar
- D \$1.25

8 If a recipe calls for $4\frac{1}{2}$ cups of flour for 48 cookies, how much flour would be needed for 24 cookies?

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

9 Five tickets to a carnival cost \$45. How much would seven tickets cost?

- A \$69
- B \$55
- C \$70
- D \$63

10 A proportion often shows the relationship between:

- A Two similar quotients
- B Two congruent angles
- C Two matching pairs
- D Two equivalent fractions