# Level 1: Multiplying and Dividing Fractions Posttest

## Question 1:

**There are 2 parts to this question.**

a. There are 5 cookies to divide among 4 girls. If the cookies are divided equally, each girl gets [ ] of the cookies.

a. $\frac{1}{5}$

b. $\frac{1}{4}$

c. $\frac{4}{5}$

d. $\frac{5}{4}$

b. My answer is [ ] because there are [ ] cookies than girls. Each girl gets [ ] than one cookie.

- My answer is: a. <1 b. >1
- there are: a. more b. fewer
- Each girl gets: a. more b. fewer

## Question 2:

Cindy owns three clothing stores. The table shows the total number of sweaters for sale in each store.

| Store | Sweater Color | |
|---|---|---|
| | Aqua | Navy Blue |
| Venus | 3 | 4 |
| Cool Clothes | 5 | 5 |
| Daisy Wear | 1 | 6 |

What fraction of all the aqua sweaters are in the Venus store?

a. $\frac{1}{3}$

b. $\frac{1}{8}$

c. $\frac{3}{7}$

d. $\frac{3}{8}$

Continue ➡

**Question 3:**

The large bottle of vitamins is full. It takes $\frac{1}{8}$ of the vitamins in a full bottle to fill one vial.


Which fraction shows the portion of vitamins left in the large bottle after all 5 vials are filled?

a. $\frac{1}{40}$

b. $\frac{3}{40}$

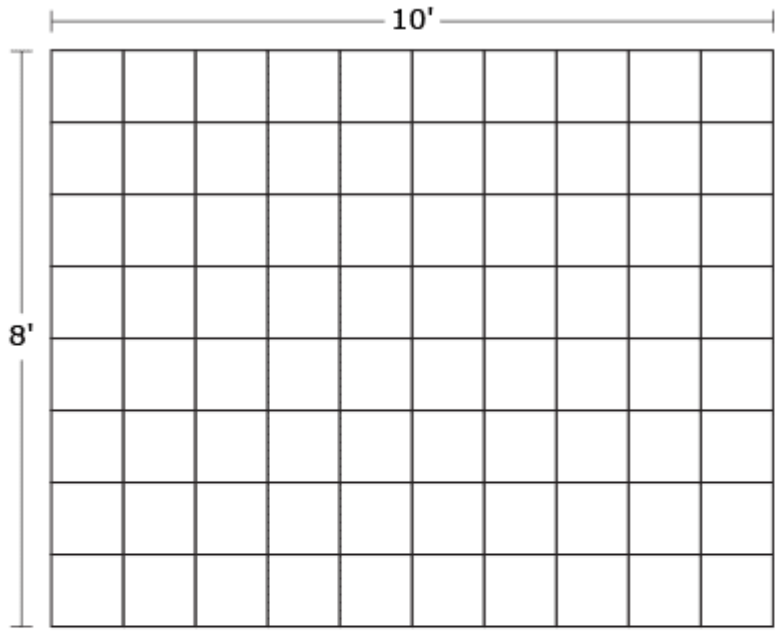
c. $\frac{3}{8}$

d. $\frac{5}{8}$

*Continue* ➡

**Question 4:**

The diagram shows a closet floor. Each square is 1 foot long and 1 foot wide.




An architect is dividing the 8-foot by 10-foot closet into storage units. Each storage unit is 2 feet long and 2 feet wide. What fraction of the closet floor does one storage unit fill?

a. $\frac{1}{20}$

b. $\frac{1}{5}$

c. $\frac{1}{4}$

d. $\frac{8}{10}$

Continue

**Question 5:**

At the University of Kentucky, $\frac{1}{5}$ of the students are from another state. The rest are from Kentucky. If there are 30,115 students, how many students are from Kentucky?

a. 6,023

b. 24,092

c. 120,460

d. 150,575

**Question 6:**

A real estate agent is comparing the area of two ponds. The first pond is $5$ miles long and $1\frac{1}{4}$ miles wide. The second pond is $5$ miles long and $\frac{7}{8}$ mile wide. Which of the following statements is true?

a. The first pond is larger because $5$ times $1\frac{1}{4}$ is greater than $5$.

b. The second pond is smaller because $5$ times $\frac{7}{8}$ is less than $5$.

c. All of the above are true.

d. None of the above is true.

**Question 7:**

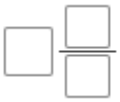
Chuck divides $\frac{1}{2}$ of a pallet of bricks equally among 3 workers. What fraction of a full pallet does each worker receive?

$\frac{\square}{\square}$

*Continue* ➡

**Question 8:**

Chuck divides 4 pallets of bricks equally among 3 workers. What fraction of a pallet does each worker receive?



**Question 9:**

Use the table to answer the question that follows.

| Part Number | Size (width x height) |
|---|---|
| 100 | 2 inches by $\frac{2}{7}$ inch |
| 200 | 2 inches by $1\frac{1}{16}$ inches |
| 300 | 2 inches by $1\frac{1}{8}$ inches |
| 400 | 2 inches by $1\frac{2}{8}$ inches |

An engineer wants the smallest part for an engine. Which part is smallest?

a. Part 100

b. Part 200

c. Part 300

d. Part 400

*Continue* ➡

**Question 10:**

The table shows the dimensions of two auditoriums.

| Auditorium | Size (width x length) |
|---|---|
| A | 225 feet x 100 feet |
| B | 225 feet x 200 feet |

Compare the area of the two auditoriums. Choose the answers that make the sentence true.

Because 100 feet is [ ] 200 feet, Auditorium A is [ ] the size of Auditorium B.

a. 1/20 of
b. ½ of
c. 2 times
d. 100 times

a. 1/20 of
b. ½ of
c. 2 times
d. 100 times

**Question 11:**

Ethan is planting grass seed in all four pastures listed in the table.

| Pasture | Size (width x length) |
|---|---|
| Goat | 3 acres x $\frac{3}{4}$ acre |
| Horse | 3 acres x $\frac{6}{4}$ acre |
| Cow | 3 acres x $\frac{7}{8}$ acre |
| Llama | 3 acres x $\frac{4}{5}$ acre |

If the land is seeded evenly, which pasture will require the most grass seed?

a. Goat pasture

b. Horse pasture

c. Cow pasture

d. Llama pasture

*Continue* ➡

**Question 12:**

The results of the survey showed $\frac{2}{3}$ of the responses were from women. Of the women who responded $\frac{3}{4}$ were from Kentucky. What fraction of all the people who responded were women from Kentucky?

a. $\frac{1}{12}$

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

c. $\frac{5}{7}$

d. $\frac{8}{9}$

**Question 13:**

A veterinarian found $\frac{2}{3}$ of the $6$ dogs he examined had Lyme disease. Which equation shows how many dogs had Lyme disease?

a. $6 \div \frac{2}{3}$

b. $6 \times \frac{2}{3}$

c. $6 + \frac{2}{3}$

d. $6 - \frac{2}{3}$

*Continue* ➡

**Question 14:**

An advertising department divided a billboard into 3 equal parts. One of the 3 parts will be covered with 4 photographs of equal size. What fraction of the billboard will be covered by ONE photograph?

a. $\frac{1}{12}$

b. $\frac{11}{12}$

c. $\frac{4}{3}$

d. $\frac{13}{6}$

**Question 15:**

Alice uses $\frac{1}{3}$ of a gallon of gasoline to mow her lawn. How many times Alice can mow her lawn with 4 gallons of gasoline?

☐ times

**Question 16:**

A gym teacher divides 28 students into groups. She sends $\frac{1}{4}$ of the students to the balance beam and $\frac{1}{4}$ of the students to the trampoline. How many students are left?

a. 7 students

b. 14 students

c. 21 students

d. 112 students

*Continue* ➡

**Question 17:**

The table shows how much fabric is needed to make two different designs.

| Designer | Size (width by length) |
|---|---|
| Eliza | 2 yards by $1\frac{1}{4}$ yard |
| Michael | 2 yards by $\frac{7}{8}$ yard |

Whose design requires more fabric and why? Mark all that are true.

a. Eliza's design, because multiplying a whole number by a fraction greater than one results in a number greater than the whole number.

b. Michael's design, because multiplying a whole number by a fraction greater than one results in a number less than the whole number.

c. Eliza's design, because multiplying any two numbers results in number greater than either number.

d. Michael's design, because multiplying a whole number by a mixed number results in a number greater than the whole number.

**Question 18:**

Larry had 42 baseball cards. He gave his sister $\frac{1}{6}$ of them. How many cards did Larry give his sister?

a. 6

b. 7

c. 8

d. 9

*Continue* ➡

**Question 19:**

Jesse wants to use the recipe below to make as many cupcakes as he can.

**Chocolate Cupcakes (Makes one batch)**

- $2\frac{1}{4}$ cups flour
- $1\frac{1}{2}$ cups sugar
- $1\frac{1}{2}$ teaspoons baking soda
- $1\frac{1}{2}$ teaspoons salt
- $\frac{1}{2}$ cup cocoa powder
- $\frac{3}{4}$ cup oil
- $1\frac{1}{2}$ cups water
- $1\frac{1}{2}$ teaspoons vanilla
- $1\frac{1}{2}$ tablespoons vinegar

Jesse has only 1 teaspoon of vanilla, so he cannot make a whole batch. What fraction of the batch can Jesse make if he uses all his vanilla?

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

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

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

d. $\frac{1}{3}$

**Question 20:**

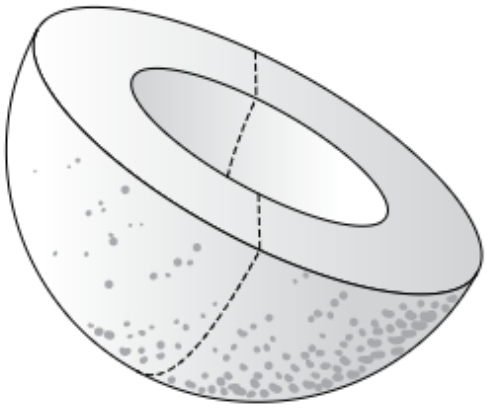
Leslie sorts the nuts in a package of mixed nuts and finds that $\frac{2}{3}$ of them are cashews. She eats $\frac{1}{3}$ of the cashews and no other nuts. What fraction of all nuts in the package does Leslie eat?

$\frac{\square}{\square}$

*Continue* ➡

**Question 21:**

Twins are sharing $\frac{1}{2}$ of a cantaloupe equally as shown below.



What fraction of the whole cantaloupe will each twin get?

$\frac{\square}{\square}$

**Question 22:**

Dimitri runs on a 3-mile track. There is a marker at the end of each $\frac{1}{8}$-mile segment of the track. How many markers are on the track?

☐ markers

**Question 23:**

Michael wants to feed his birds $\frac{3}{4}$ cup of bird food each day. How many cups of bird food does he need to feed the birds for 8 days?

☐ cups

*Continue* ➡

**Question 24:**

A recipe for 1 batch of cookies calls for $\frac{2}{3}$ cup sugar. Shawn wants to make 4 batches of the cookies. The amount of sugar Shawn should use is the product of $\frac{2}{3} \times 4$.

How much sugar should Shawn use?

a. $\frac{2}{12}$ cup

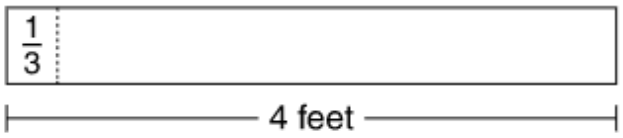
b. $\frac{8}{12}$ cup

c. $\frac{4}{3}$ cups

d. $\frac{8}{3}$ cups

**Question 25:**

Ted has a piece of wood that is 4 feet long. He cuts the wood into sections that are each $\frac{1}{3}$ foot long, as shown in this diagram.




How many sections of wood does Ted cut?

a. $1\frac{1}{3}$

b. $3$

c. $7$

d. $12$

Continue

**Question 26:**

On a map, $\frac{1}{4}$ inch represents 100 miles.


The distance on the map between Sunnydale and Capital City is 5 inches. What is the actual distance between Sunnydale and Capital City?

a. 25 miles

b. 125 miles

c. 400 miles

d. 2,000 miles

Stop