Level 1: Multiplying and Dividing Fractions Posttest Answer Key

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

a. <1 b. >1

a. more b. fewer

girls. Each girl gets [ ] than one cookie.

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. $\frac{5}{8}$

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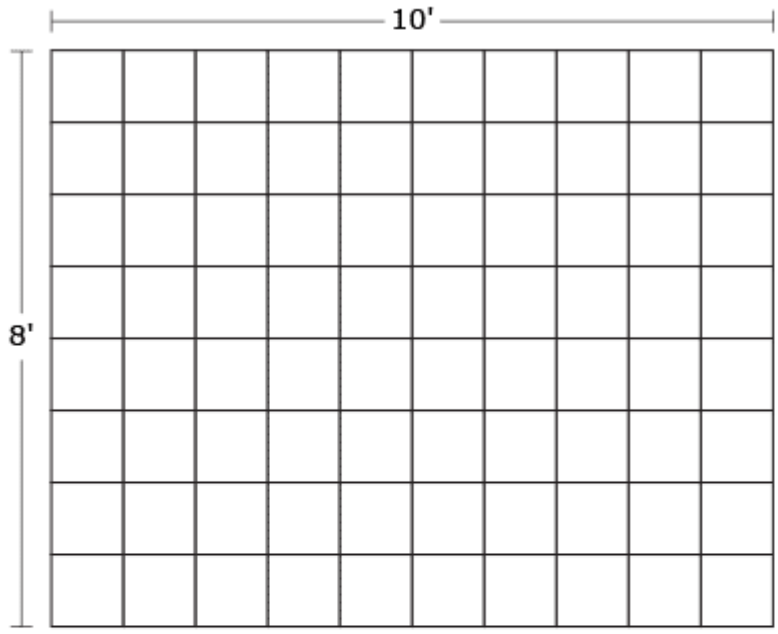
Question 4:

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. $\frac{8}{10}$

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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?

$\frac{1}{6}$

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Question 8:

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

$1\frac{1}{3}$

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

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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

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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?

12 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?

$\frac{2}{9}$

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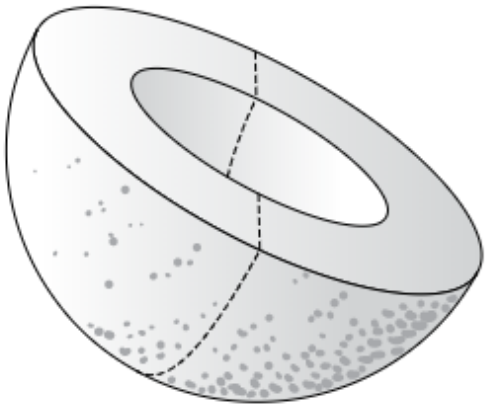
Question 21:

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



What fraction of the whole cantaloupe will each twin get?

$\frac{1}{4}$

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?

24 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?

6 cups

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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

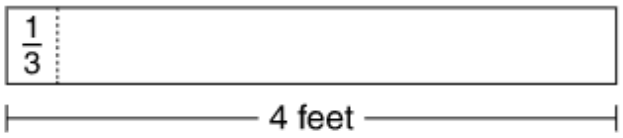
b. $\frac{8}{12}$ cup

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

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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