Level 1: Multiplying and Dividing Fractions Midtest Answer Key

Question 1:

This question has 2 parts. Answer Part a, then answer Part b.

Tom is designing a vegetable garden. The table shows the size of each bed.

Vegetable Garden Plan

Vegetable	Size of Garden (acres)
Tomato	$\frac{1}{2}$
Zucchini	$\frac{1}{8}$
Eggplant	$\frac{1}{4}$
Cucumbers	$\frac{3}{8}$
Lettuce	$\frac{5}{8}$
Carrots	$\frac{1}{4}$
Potatoes	$\frac{5}{8}$

a. Plot the fractions on the number line to show the size of each garden bed.

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b. Tom redesigns the vegetable garden so each vegetable has the same amount of space. With the new design, what is the size of each bed, in acres?

a. $\frac{11}{4}$ acres

b. $\frac{11}{28}$ acres

c. $\frac{77}{4}$ acres

d. $\frac{77}{24}$ acres

Question 2:

Five team members share 3 packages of paper. Each member gets $\frac{3}{5}$ of a package. Choose the phrase that makes the following sentence true.

This problem can be interpreted as 3 _____ 5.

a. multiplied by

b. subtracted from

c. added to

d. divided by

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Question 3:

This question has 2 parts.

The total area of Erin's garden is 20 square feet. She plants flowers in $\frac{1}{3}$ of her garden and vegetables in the remainder.

a. What is the area of Erin's vegetable garden?

$\boxed{13\ \frac{1}{3}}$ square feet

The total area of Erin's garden is 20 square feet. She plants flowers in $\frac{1}{3}$ of her garden and vegetables in the remainder. Erin plants beans in $\frac{2}{5}$ of her vegetable garden.

b. Which equation shows the fraction of the entire garden that is planted with beans?

a. $\frac{2}{5} \times \frac{2}{3}$

b. $20 \times \frac{2}{5}$

c. $\frac{2}{3} + \frac{2}{5}$

d. $20 - \frac{3}{5}$

Question 4:

In the Amazon Rain Forest, $\frac{2}{3}$ of the yearly rainfall occurs during January through May. The annual rainfall is 70 inches. Choose the answer that tells how to find the rainfall for January through May.

70 inches _____ $\frac{2}{3}$ = amount of rainfall January through May.

a. multiplied by

b. subtracted from

c. added to

d. divided by

Continue ➡

Question 5:

Jada is training for a marathon. She wants to run a total of 25 miles this week. She will run the same distance each day for 6 days. How many miles will she run each day?

a. $2\frac{5}{6}$

b. $4\frac{1}{6}$

c. $5\frac{1}{6}$

d. $6\frac{1}{4}$

Question 6:

Sofia's class is painting a design on a wall of their school. The wall is 6 meters long. Each of the 20 students will paint an equal length of the wall. What is the length of wall that each student will paint?

a. $\frac{1}{14}$ meter

b. $\frac{3}{10}$ meter

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

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

Question 7:

Chris is taking 50 pounds of old newspapers to the recycling center. He makes 8 bundles of equal weight. Which is the best estimate of the weight of each bundle?

a. between 4 and 5 pounds

b. between 5 and 6 pounds

c. between 6 and 7 pounds

d. between 7 and 8 pounds

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Question 8:

Of the students who took a survey, $\frac{2}{5}$ are fifth graders. Of these fifth graders, $\frac{2}{3}$ are boys. What fraction of the students taking the survey are fifth grade boys?

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

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

c. $\frac{2}{15}$

d. $\frac{4}{15}$

Question 9:

Timothy is using a rectangular piece of fabric to cover a box. The width of the fabric is $\frac{4}{5}$ yard and the length is $\frac{3}{4}$ yard. What is the area of the piece of fabric?

a. $\frac{3}{5}$ square yard

b. $\frac{3}{10}$ square yard

c. $\frac{7}{9}$ square yard

d. $\frac{7}{20}$ square yard

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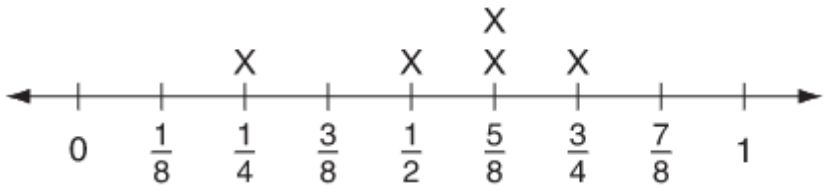
Question 10:

The line plot below shows the distance each member of a relay team ran in a race.



Distance Run in Miles

What was the total distance, in miles, run by the members of the team?

a. $\frac{11}{20}$

b. $\frac{15}{26}$

c. $2\frac{1}{8}$

d. $2\frac{3}{4}$

Question 11:

A pot contains 5 cups of soup. Micah divides the soup equally among 4 bowls. How much soup, in cups, does he put into each bowl?

$1\frac{1}{4}$ cups of soup per bowl

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Question 12:

This question has 2 parts.

Lara and five friends together buy 8 yards of ribbon to use on their art projects. The girls divide the ribbon into 6 equal lengths. Each girl gets one of the lengths.

a. How many yards of ribbon does each of the girls get?

a. $\frac{6}{8}$ of a yard

b. $\frac{1}{2}$ of a yard

c. $1\frac{1}{3}$ yards

d. 48 yards

Lara uses $\frac{1}{4}$ of her ribbon to make a bow.

b. How many yards of ribbon does Lara use for the bow?

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

b. $1\frac{2}{7}$ yards

c. 4 yards

d. $5\frac{1}{3}$ yards

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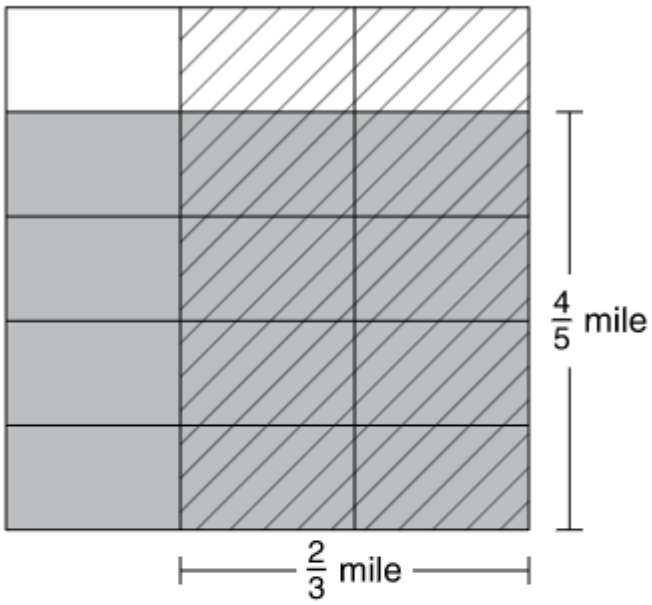
Question 13:

A rectangular park is $\frac{2}{3}$ mile wide and $\frac{4}{5}$ mile long. This diagram models the area of the park.



What is the area of the park in square miles?

a. $\frac{1}{15}$

b. $\frac{2}{15}$

c. $\frac{4}{15}$

d. $\frac{8}{15}$

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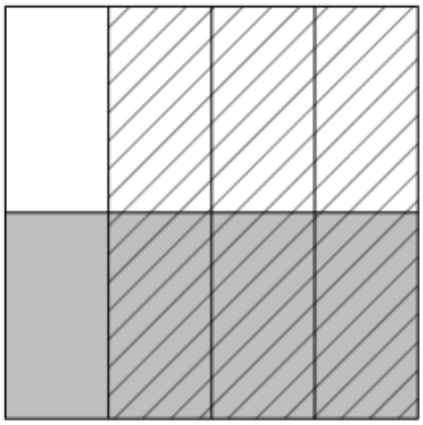
Question 14:

Look at this model.



Which expression is shown by this model?

a. $\frac{1}{8} \times \frac{3}{8}$

b. $\frac{3}{4} \times \frac{1}{2}$

c. $\frac{1}{2} \times \frac{3}{2}$

d. $\frac{3}{1} \times \frac{1}{4}$

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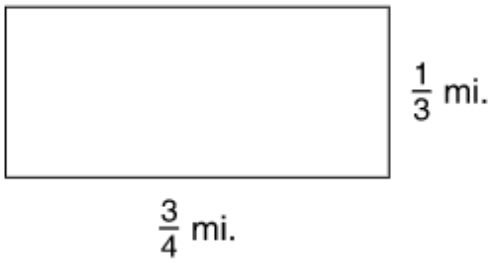
Question 15:

A rectangular orchard is $\frac{3}{4}$ mile long and $\frac{1}{3}$ mile wide, as shown in this diagram.



What is the area of the orchard?

a. $\frac{3}{12}$ square mile

b. $\frac{4}{12}$ square mile

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

d. $\frac{4}{7}$ square mile

Question 16:

Soccer practice is $1\frac{1}{2}$ hours long. The coach uses $\frac{1}{2}$ of the practice time to play a game.

How long is the game?

a. $\frac{1}{2}$ hour

b. $\frac{3}{4}$ hour

c. 1 hour

d. $1\frac{1}{4}$ hours

Stop