

## Level 2: Ratios and Proportional Relationships Posttest Answer Key

### Question 1:

A 747 airplane fuel tank holds 54,000 gallons of fuel when it is full.

If the tank is 48% full, how many gallons of fuel are in it?

gallons

### Question 2:

A marine biologist tested the mercury levels in 30 kilograms of shrimp. She found that  $4\frac{1}{8}$  kilograms of the shrimp contained dangerous levels of mercury.

What percent of the shrimp contained dangerous levels of mercury?

%

### Question 3:

The ratio of water to sugar in food for hummingbirds is 4:1.

How many cups of sugar should be mixed with 1 cup of water?

cup of sugar

### Question 4:

To make concrete, mix cement, sand, rocks, and water in the ratio shown below.

1 : 3 : 2 : 1

Complete the table to show how much of each material should be mixed with 5 parts cement.

Ratio of Materials in Concrete		
Material	Amount	Amount
Cement	1	5
Sand	3	<input type="text" value="15"/>
Rocks	2	<input type="text" value="10"/>
Water	1	<input type="text" value="5"/>

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**Question 5:**

In a sample of 40,000 words, approximately 5% of the letters used in the words were "R."

Approximately how many letters in the 40,000 words were "R"?

- a. 200
- b. 800
- ☒ c. 2000
- d. 8000

**Question 6:**

An airplane fuel tank holds 140 gallons of fuel when it is full.

If the tank is 35% full, how many gallons of fuel are in it?

- ☒ a. 49 gallons
- b. 40 gallons
- c. 4.9 gallons
- d. 4.0 gallons

**Question 7:**

A triathlon race includes a 2.5-kilometer swim.

How long is the swim in meters?

- a. 25,000 meters
- ☒ b. 2,500 meters
- c. 250 meters
- d. 25 meters

Continue ➡



**Question 8:**

This table shows the costs for different numbers of packages of juice.

**Cost of Packages of Juice**

Number of Packages	2	4	6	8	10
Total Cost (\$)	5	10	15	20	25

What is the cost per package of juice?

- a. \$1.50
- b. \$2.00
- c. \$2.50**
- d. \$5.00

**Question 9:**

Donald filled the tank in his car with 12 gallons of gasoline. The gasoline cost \$46.31.

Which of the following is closest to the per gallon price of the gasoline?

- a. \$3.43
- b. \$3.86**
- c. \$4.33
- d. \$5.56

**Question 10:**

A television cable is 126 inches in length.

Which expression can be used to find the length of the cable in yards?

- a.  $126 \div (3 \times 12)$**
- b.  $126 \div 3 \times 12$
- c.  $126 \times (3 \div 12)$
- d.  $126 \times 3 \times 12$

Continue ➡



**Question 11:**

A store advertisement shows that 5 pounds of apples cost \$4.25.

At that rate, what is the cost per pound of the apples?

\$  per pound

**Question 12:**

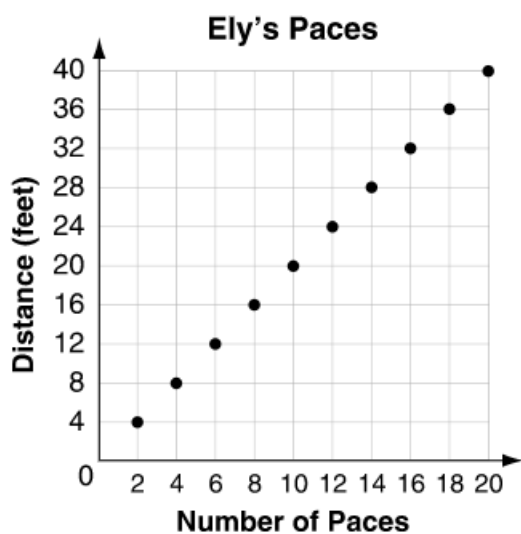
In Amad's aquarium, there are 3 goldfish for every 2 neons. There are 21 goldfish.

How many neons are in Amad's aquarium?

neons

**Question 13:**

Ely measures distances by the length of his walking pace. The graph below shows the relationship between the number of paces Ely takes and the distance he walks.



According to the graph, if Ely takes 15 paces, how many feet does he walk?

feet



**Question 14:**

Henry bought a surfboard on sale for 15% off the regular price. The regular price is \$260.

How much did Henry save by buying the surfboard on sale?

\$

39

**Question 15:**

A jar of mixed nuts has 45% peanuts, 30% almonds, and 25% cashews by weight.

If the jar contains 12 ounces of almonds, how many ounces of cashews does it contain?

10

ounces

**Question 16:**

A tractor tire has a diameter of 270 centimeters.

How many meters long is the diameter of the tire?

2.7

meters

**Question 17:**

The students in Natalie's class drank 24 pints of milk at lunchtime.

How many gallons of milk did they drink?

3

gallons

**Question 18:**

Maddie bought a jacket that was on sale for 20% off the original price. The sale price was \$24.

What was the original price, in dollars?

\$

30

Continue ➡

**Question 19:**

In a yoga class, 75% of the students are women. There are 24 women in the class.

How many students are in the class?

a. 18

b. 30

c. 32

d. 42

**Question 20:**

It takes Oliver 30 minutes to walk to school every day, a distance of 1.5 miles.

What is Oliver's speed in miles per hour?

3 miles per hour

**Question 21:**

A veterinarian says that 32% of the cats she treated last year were striped. She treated 152 striped cats last year.

How many cats did the veterinarian treat last year?

475 cats

**Question 22:**

At a baseball game, 64% of the people watching the game are wearing hats. There are 272 people wearing hats.

How many people are watching the game in all?

425 people

**Question 23:**

Caroline is pulling weeds. She pulls 10 weeds in 4 minutes.

At this rate, how many weeds will she pull in 1.5 hours?

225 weeds