Level 2: Ratios and Proportional Relationships Midtest Answer Key

Question 1:

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

How many cups of sugar should be mixed with 4 cups of water?

> 1

Question 2:

What is the ratio of years to weeks?

a. 1 : 52

b. 7 : 52

c. 1 : 7

d. 52 : 1

Question 3:

This question has two parts. Use the information below to answer Parts a and b.

a. The table shows the ratio of elephants to monkeys in the zoo. Fill in the missing values to complete the table.

Ratio of Elephants to Monkeys

Elephants	Monkeys
2	6
4	12
6	18
8	24
10	30

b. What is the ratio of elephants to monkeys, expressed in lowest terms?

  a. 2 : 6

  b. 1 : 3

  c. 6 : 30

  d. 10 : 30

Question 4:

A rental agency has 12 cars for every truck. The table shows this relationship.

Ratio of Cars to Trucks	
Cars (x)	Trucks (y)
12	1
24	2
36	3
48	4
60	5

What is the ratio of cars to trucks, in lowest terms?

12:1

Question 5:

An animal shelter has 12 dogs and 36 cats.

What is the ratio of dogs to cats, expressed in lowest terms?

a. 3 : 1

b. 1 : 3

c. 6 : 18

d. 12 : 36

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Question 6:

The Fish and Game Department stocks a lake with 200 trout and 600 bass.

What is the ratio of trout to bass, expressed in the lowest terms?

a. 200 : 600

b. 100 : 300

c. 2 : 6

d. 1 : 3

Question 7:

The table shows the ratio of cups of yogurt to cups of mixed berries for smoothies.

Fill in the missing values to complete the table.

Ratio of Yogurt to Mixed Berries	
Cups of Yogurt	Cups of Mixed Berries
1	2
2	4
3	6
4	8
12	10

Question 8:

The table shows the ratios to convert American dollars to Euros.

Fill in the missing values to complete the table.

Ratio of American Dollars to Euros

American Dollars	Euros
1	0.75
3	2.25
6	4.5
9	6.75
12	9

Question 9:

This question has two parts; be sure to answer a and b.

a. The table shows the ratio of software engineers to computer support analysts working in a computer company. Fill in the missing values to complete the table.

Ratio of Software Engineers to Computer Support Analysts

Software Engineers	Computer Support Analysts
2	15
4	30
6	45
8	60
10	75

b. What is the ratio of software engineers to computer support analysts expressed in lowest terms?

a. 2 : 15

b. 4 : 30

c. 6 : 45

d. 15 : 2

Question 10:

The high school baseball team has the following ratio of players.

2 sophomores: 3 seniors: 4 juniors

If there are 6 sophomores on the team, how many seniors and juniors are on the team? (Show your answer by completing the table.)

Ratio of Sophomores to Seniors to Juniors

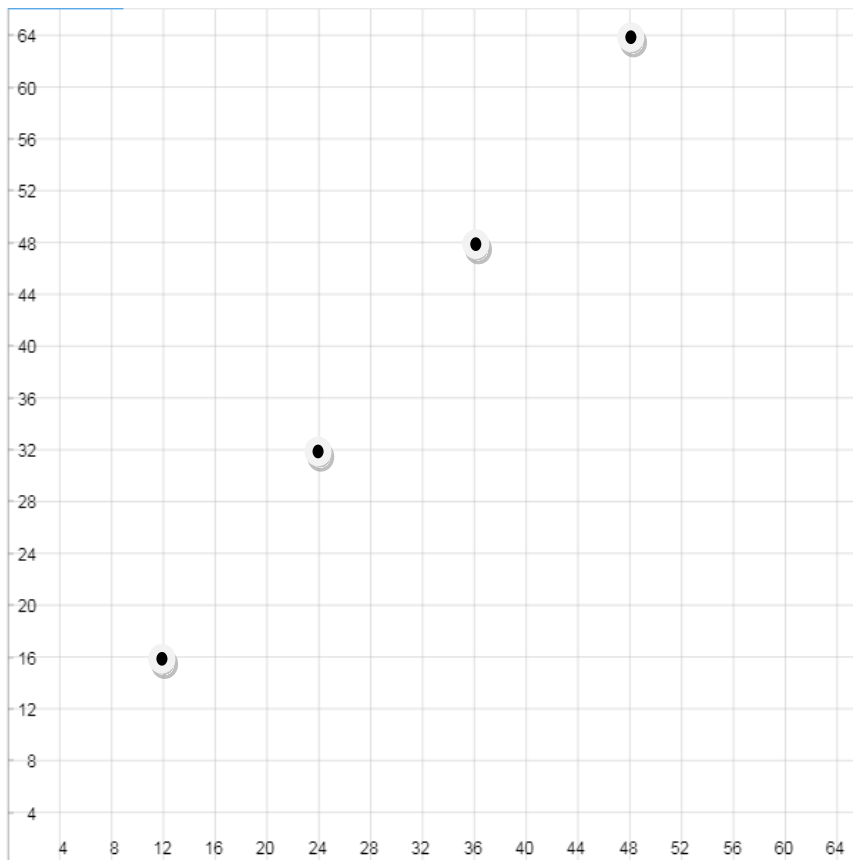| Sophomores	Seniors	Juniors
2	3	4
6	9	12

Question 11:

This question has three parts; Be sure to answer a, b, and c.

a. Complete the table below.

Ratio of Firefighters to Police Officers	
Firefighters (x)	Police Officers (y)
12	16
24	32
36	48
48	64
60	80

b. Plot the first four pairs of values on the coordinate plane. Use the x-axis for the number of firefighters and the y-axis for the number of police officers.

c. What is the ratio of firefighters to police officers, expressed in lowest terms?

3 : 4

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Question 12:

A group of students went on a field trip. There were 3 boys for every 4 girls in the group.

If there were 20 girls, how many students in all went on the field trip?

   a. 15

   b. 27

   c. 32

   d. 35

Question 13:

Julie's soccer team has won 3 games for every 2 it has lost. The team has won a total of 9 games and 1 game had a tie score.

How many games has the team played in all?

   a. 14

   b. 15

   c. 16

   d. 18

Question 14:

A recipe for banana bread makes 2 loaves. The recipe requires 3 cups of flour.

How many cups of flour are required to make 8 loaves of the banana bread?

   a. 5

   b. 6

   c. 12

   d. 24

Question 15:

Yesenia swims laps at a pool. For every 10 laps she swims the backstroke, she swims 15 laps of freestyle.

Which ratio shows the number of laps Yesenia swims the backstroke to the number of laps she swims freestyle?

   a. 2 : 3

   b. 2 : 5

   c. 3 : 2

   d. 5 : 2

Question 16:

On Saturday, an ice-cream shop sold 60 vanilla cones, 80 chocolate cones, and 40 strawberry cones.

What is the ratio of vanilla cones to chocolate cones?

a. 3 to 7

b. 3 to 4

c. 2 to 3

d. 1 to 2

Question 17:

It took Georgie 20 minutes to do 30 homework problems.

What was her homework rate in problems per minute?

| 1.5 | problems per minute |

Question 18:

Annie is making paper flowers. She is making a table to show the time it takes to make different numbers of flowers. Fill in the blanks to complete Annie's table.

Time (minutes)	Paper Flowers Made
20	16
18.75	15
90	72

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