

Name: $\qquad$ Date: $\qquad$ Period: $\qquad$ You must show all your work for each problem including the multiple choice questions to receive credit!

1. Write each ratio as a fraction in simplest form. Then explain its meaning.

Flutes to Drums
Answer: $\qquad$
Meaning: $\qquad$

Sandwiches to Milk Cartons
Answer: $\qquad$
Meaning: $\qquad$

2. A class has 6 boys and 15 girls. What is the ratio of boys to girls?

Answer: $\qquad$
3. The table shows the number of books Salvador has read. Find the ratio of mystery books to the total.

| Type | Number of Books |
| :---: | :---: |
| Mystery | 10 |
| Nonfiction | 7 |
| Science Fiction | 5 |
| Western | 2 |

Answer: $\qquad$
4. An animal shelter has 36 kittens and 12 puppies available for adoption. What is the ratio of puppies to kittens?

Answer: $\qquad$
5. The table shows how Levon spends his time at the gym. What is the ratio of the time on the treadmill to the time lifting weights?
A) 2 to 3
B) 5 to 7
C) 4 to 5

| Activity | Time (min) |
| :---: | :---: |
| Treadmill | 25 |
| Lifting Weights | 35 |

D) 1 to 7

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You must show all your work for each problem including the multiple choice questions to receive credit!
Complete each ratio table to solve questions \#1-4.

1. Santiago receives an allowance of $\$ 7$ every week. How much total does he receive after 4 weeks?

| Allowance (\$) | 7 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Number of Weeks | 1 |  |  | 4 |



Answer: $\qquad$
2. Tonya runs 8 kilometers in 60 minutes. At this rate, how long would it take her to run 2 kilometers?

| Distance Run (km) | 8 |  | 2 |
| :--- | :--- | :--- | :--- |
| Time (min) | 60 |  |  |

Answer: $\qquad$
3. Lisa buys 12 packs of juice boxes that are on sale and pays a total of $\$ 48$. Use a ratio table to determine how much Lisa will pay to buy 8 more packs of juice boxes at the same store.

| Number of Juice Box Packs | 9 | 12 | 20 |
| :--- | :--- | :--- | :--- |
| Price (\$) |  | 48 |  |

Answer: $\qquad$
4. A punch recipe that serves 24 people calls for 4 liters of lemon-lime soda, 2 pints of sherbet, and 6 cups of ice.
A) Complete a ratio table to represent this situation.

| People Served | 24 | 12 |
| :--- | :--- | :--- |
| Liters of Soda |  |  |
| Pints of Sherbet |  |  |
| Cups of Ice |  |  |

B) How much of each ingredient would you need to make an identical recipe that served 12 people?

Liters of Soda: $\qquad$ Pints of Sherbet: $\qquad$ Cups of Ice: $\qquad$
5. Lee buys 5 DVDs for $\$ 60$. At this rate, how much would he pay for 3 DVDs?
A) $\$ 10$
B) $\$ 30$
C) $\$ 36$
D) $\$ 58$

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1. Determine if each pair of ratios or rates is equivalent. Explain your reasoning.
A) $\$ 24$ saved after 3 weeks; $\$ 52$ saved after 7 weeks

Answer: $\qquad$
Explanation: $\qquad$

B) 270 Calories in 3 servings; 450 Calories in 5 servings

Answer: $\qquad$
Explanation: $\qquad$
2. Jenny is comparing the cost of two packages of socks. One package has 8 pairs of socks for $\$ 12$. Another package has 3 pairs of socks for $\$ 6$. Are the ratios/rates equivalent?

Answer: $\qquad$
3. The ratio of girls to boys in the junior high is 3 to 4 . Which of these shows possible numbers of the girls and boys in the band?
A) 30 girls, 44 boys
B) 27 girls, 36 boys
C) 22 girls, 28 boys
D) 36 girls, 50 boys
4. Marcia made 10 bracelets for 5 friends. Jen made 12 bracelets for 4 friends. Are these ratios/rates equivalent?

Answer: $\qquad$
5. Club A raised $\$ 168$ by washing 42 cars. Club B raised $\$ 152$ by washing 38 cars. Are these fundraising rates equivalent?

Answer: $\qquad$

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1. If $\frac{3}{4}=\frac{x}{16}$, then $\mathrm{x}=$ ?
A) 12
B) 14
C) 16
D) 18

2. If $\frac{20}{x}=\frac{8}{12}$, then $x=$ ?
A) 24
B) 27
C) 28
D) 30
3. If $\frac{3}{12}=\frac{24}{x}$, then $x=$ ?
A) 84
B) 96
C) 108
D) 112
4. Determine whether each pair of ratios are equivalent. Show all your work!
$\frac{3}{5}$ and $\frac{9}{15} \quad \frac{2}{7}$ and $\frac{5}{21}$

Answer: $\qquad$ Answer: $\qquad$
5. A birdhouse and the pole that it is on cast a shadow 15 feet long. If a person standing nearby casts a shadow 5 feet long, and the person is 4 feet tall, how tall are the birdhouse and the pole?

Answer: $\qquad$
6. If 45 cookies will serve 15 students, how many cookies are needed for 30 students?

Answer: $\qquad$

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1. Look at the tape diagram below for the number of boys and the number of girls in a school. Find the total number of students in the school.
Answer: $\qquad$

2. Dawn and Jackson have baseball cards in a in a ratio of $2: 3$. Together, they have a total of 60 baseball cards. How many baseball cards does each child have? Draw a tape diagram to solve the problem.

Dawn: $\qquad$ Jackson: $\qquad$
3. Asha runs 5 meters every 2 seconds. How far does Asha run after 3 seconds? After 5 seconds?


3 seconds: $\qquad$ 5 seconds: $\qquad$
4. In a bag there are red and green balls in the ratio of $2: 7$. If there are 14 red balls, find the number of green balls in the bag. Draw a tape diagram to solve the problem.

Answer: $\qquad$

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1. The ratio of boys to girls in the class is $5: 7$. There are 36 children in the class. How many more girls than boys are there in the class? Use the tape diagram below to solve the problem.

2. Lisa, Gloria and Mary were paid $\$ 120$ for babysitting in a ratio of $2: 3: 5$. How much less did Lisa make than Mary? Use the tape diagram below to solve the problem.

3. In an office, the number of male workers is 3 times greater than female workers. If there are 60 female workers, how many male workers are in the offices? Draw a tape diagram to solve the problem.

Answer: $\qquad$
4. Zack's orange paint is made by mixing 3 cups of red for every 5 cups of yellow. We know that Zack bought 24 cups of red paint. How many cups of yellow paint does Zack need to make his shade of orange paint? Draw a tape diagram to solve the problem.

Answer: $\qquad$

Name: $\qquad$ Date: $\qquad$ Period: $\qquad$
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1. The most common women's shoe size in the U.S. is reported to be an $8 \frac{1}{2}$. A shoe store uses a table like the
2. below to decide how many pairs of size $8 \frac{1}{2}$ shoes to buy when they place a shoe order from the shoe makers.

| Total number of pairs of shoes being ordered | Number of pairs of size $\mathbf{8} \mathbf{1} / \mathbf{2}$ to order |
| :---: | :---: |
| 50 | 8 |
| 100 | 16 |
| 150 | 24 |
| 200 | 32 |

a) What is the ratio of the number of pairs of size $8 \frac{1}{2}$ shoes they order to the total number of pairs of shoes being ordered?

Answer: $\qquad$
b) Plot the values from the table on a coordinate plane, and draw a straight line through the points. Label the axes. Then use the graph to find the number of pairs of size $81 / 2$ shoes they order for a total order of 125 pairs of shoes.


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1. A recipe for apple crisp uses 4 parts oats, 8 parts brown sugar, and 10 parts flour. In simplest form, how many parts of brown sugar are there for every part of flour?
a. $\frac{4}{5}$ part
b. $\frac{1}{2}$ part
c. $\frac{2}{3}$ part
d. $\frac{1}{4}$ part
2. Which value of $x$ will make these ratios equivalent?

$$
\frac{24}{42}=\frac{4}{x}
$$

a. 19
b. 15
c. 7
d. 5
3. In his last soccer game, Christian made 8 saves and let in 2 goals. What was his ratio of saves to total shots on goal?
a. $\frac{4}{1}$
b. $\frac{4}{5}$
C. $\frac{3}{4}$
d. $\frac{1}{5}$
4. A coconut cream pie recipe uses 6 ounces of cream cheese, 12 ounces of condensed milk, and 10 ounces whipped topping. In simplest form, how many ounces of cream cheese are there for every ounce of condensed milk?
a. $\frac{3}{6}$ ounce
b. $\frac{1}{2}$ ounce
c. $\frac{6}{12}$ ounce
d. $\frac{2}{3}$ ounce
5.

Chantal's Flower Bed

| Type of Flower | Number of Bulbs |
| :--- | :--- |
| Daffodils | 6 |
| Hyacinths | 12 |
| Tulips | 8 |

Which ratio compares the number of daffodil bulbs to the number of tulip bulbs?
a. $3: 4$
b. $3: 2$
c. $4: 3$
d. 2:3
6. The table below shows the number of cups of sugar and of flour needed to make some cookies. If Alexa uses 5 cups of sugar to make cookies, how many cups of flour does she need?

| Cups of Flour | 4 | 6 | 8 | $?$ |
| :--- | :--- | :--- | :--- | :--- |
| Cups of Sugar | 2 | 3 | 4 | 5 |

a. 20 cups
b. 15 cups
c. 10 cups
d. 6 cups
7. Follow the directions below for this questions.
a) Draw a line to match the tape diagram with the story problem that it represents.
b) For each tape diagram, write numbers in each box so the tape diagrams are complete.
c) Solve each problem on the line below the story. Label each answer.


A
The ratio of girls to boys in a class is $1: 3$. If there are 12 boys, how many girls are there?


B
The ratio of boys to girls in a class is $1: 2$. If there are 12 boys, how many girls are there?


C
The ratio of girls to boys in a class is $3: 1$. If there are 12 boys, how many girls are there?


D
The ratio of boys to girls in a class is 2:1. If there are 12 boys, how many girls are there?
8. The table below shows the teaspoons of salt and sugar in a recipe.

| Teaspoons of Salt <br> $(x)$ | 2 | 4 | 6 | 8 |
| :--- | :--- | :--- | :--- | :--- |
| Teaspoons of <br> Sugar $(\mathrm{y})$ | 4 | 8 | 12 | $?$ |

a. How many parts of sugar should be used with 8 parts salt?
b. Plot the ordered pairs from the table on the coordinate grid.

9. The table below shows the number of votes that the candidates for class president received.
a. For every vote that Brooklyn received, who received three times as many?

Answer: $\qquad$
b. What is the ratio in simplest form of the number of votes Derek received to the total number of votes?

| Votes for Class President |  |
| :---: | :---: |
| Candidate | Number of Votes |
| Brooklyn | 18 |
| Derek | 36 |
| Caidan | 54 |
| Julia | 27 |
| Sheldon | 45 |

Answer: $\qquad$

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## CONVERSIONS

| 1 inch $=2.54$ centimeters | 1 kilometer $=0.62$ mile | 1 cup $=8$ fluid ounces |
| :--- | :--- | :--- |
| 1 meter $=39.37$ inches | 1 pound $=16$ ounces | 1 pint $=2$ cups |
| 1 mile $=5,280$ feet | 1 pound $=0.454$ kilogram | 1 quart $=2$ pints |
| 1 mile $=1,760$ yards | 1 kilogram $=2.2$ pounds | 1 gallon $=4$ quarts |
| 1 mile $=1.609$ kilometers | 1 ton $=2,000$ pounds | 1 gallon $=3.785$ liters |
|  |  | 1 liter $=0.264$ gallon |
| 1 liter $=1,000$ cubic centimeters |  |  |

1. Lizzy saw a raccoon in her backyard last weekend. She put out some water and a bowl with 3 cups of food. The raccoon drank all the water and ate $1 / 2$ the food. How many ounces of food did the raccoon eat?

Answer: $\qquad$
2. Heather had six 2 -liter bottles of soda. She poured the soda into containers which each have a capacity of 1 gallon.

Part A: How many total liters of soda did Heather have? $\qquad$

Part B: How many gallon containers did she fill before she ran out of soda? $\qquad$
3. Andy bought a wooden board that was 50.5 inches long. How many centimeters of wood did Andy purchase?

Answer: $\qquad$
4. A dog weighs 8.25 kilograms. How many pounds does the dog weigh?

Answer: $\qquad$
5. Speed skating takes place on a course that is $2 / 3$ mile long. How many feet long is the course?

Answer: $\qquad$
6. A total of 35 pints of blood were collected at a local blood drive. How many quarts of blood were collected?

Answer:

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Find the unit rate for each.
25 gallons

1. $\overline{5 \text { minutes }}$

Answer: $\qquad$
60 feet
2. 10 seconds

Answer: $\qquad$

600 miles
3. 30 gallons

Answer: $\qquad$
4. Over a period of 3 hours, 180 leaves fell from a tree. At this rate, how many leaves fell in one hour?

Answer: $\qquad$
5. Georgia drove a total of 252 miles and used 12 gallons of gasoline. What is this rate in miles per gallon?

Answer: $\qquad$
6. Tyler scored 21 goals in 7 soccer games. At this rate, how many goals did he score each game?

Answer: $\qquad$
7. While climbing down a mountain, Anthony descended 45 feet every hour. At this rate, how many feet will he descend in 6 hours?

Answer: $\qquad$
8. Mary went to the store and bought $3 \frac{7}{10}$ pounds of mozzarella cheese. How much did she spend?

| gouda | $\$ 6 / \mathrm{lb}$ |
| :--- | ---: |
| blue cheese | $\$ 3 / \mathrm{lb}$ |
| mozzarella | $\$ 3 / \mathrm{lb}$ |
| smoked cheddar | $\$ 5 / \mathrm{lb}$ |

9. How much would it cost to buy a $\frac{1}{2}$ pound of fruit salad?

Answer: $\qquad$

| tuna salad | $\$ 4 / \mathrm{lb}$ |
| :--- | :--- |
| egg salad | $\$ 5 / \mathrm{lb}$ |
| fruit salad | $\$ 3 / \mathrm{lb}$ |
| green salad | $\$ 3 / \mathrm{lb}$ |
| macaroni salad | $\$ 3 / \mathrm{lb}$ |
| potato salad | $\$ 5 / \mathrm{lb}$ |

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| 1 mile $=1.609$ kilometers | 1 ton $=2,000$ pounds | 1 gallon $=3.785$ liters |
|  |  | 1 liter $=0.264$ gallon |
|  | 1 liter $=1,000$ cubic centimeters |  |

1. A pool has a capacity of 750 gallons. Which is an equivalent measure in liters?
a. $7,500.50 \mathrm{~L}$
b. $3,000.75 \mathrm{~L}$
c. $2,838.75 \mathrm{~L}$
d. 198.25 L
2. Melinda made 164 fluid ounces of lemonade for a party. How many cups of lemonade did Melinda make?
a. $10 \frac{1}{4}$ cups
b. $20 \frac{1}{4}$ cups
c. $20 \frac{1}{2}$ cups
d. 21 cups
3. A medium, fourteen-ounce slushie costs $\$ 1.68$. A large, twenty-ounce slushie costs $\$ 2.00$.

A bladder-buster slushie, at 32 ounces, costs $\$ 2.56$. Which is the best value?

Answer: $\qquad$
4. The pizza place sells slices for two dollars. Right before you order two slices, three friends walk in and suggest you equally split a pie (containing 8 slices) for $\$ 14.00$. Should you buy two slices yourself or share a pie with your friends?

Answer: $\qquad$
5. If six 20 -ounce bottles of soda costs $\$ 9.30$ what is the unit price per bottle?

Answer: $\qquad$
6. The Reyes family bought 4 concert tickets for $\$ 139$. What is the price per ticket?

Answer: $\qquad$
7. The Lovin' Lemon Company sells a 4-gallon jug of lemonade for $\$ 24$. The Sweet \& Sour Company sells an eight-pack of 1-quart bottles of lemonade for $\$ 16.00$. Which company has a higher unit price? Explain your answer.

Answer: $\qquad$

Explanation: $\qquad$
$\qquad$
$\qquad$

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| CONVERSIONS |  |  |
| :--- | :--- | :--- |
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|  |  | 1 liter $=0.264$ gallon |
|  | 1 liter $=1,000$ cubic centimeters |  |

1. A wooden stick is 4 meters long. Which shows an equivalent length?
a. $\quad 157.48$ in
b. $\quad 10.16$ in
c. 21,120 in
d. 12 in
2. Anthony needs to fill a barrel with $5 \frac{1}{4}$ gallons of water. He only has a quart container. How many times will he need to fill the quart container in order to get $5 \frac{1}{4}$ gallons of water into the barrel?
a. 34
b. 21
c. 17
d. 11
3. When biking at a constant speed, Paula can travel 8 miles in 20 minutes. She made the double number line below to help her find out how many miles she can bike in different amounts of time. How many miles can she bike in 40 minutes?

0 mi. 24 mi.

a. 8 miles
b. 12 miles
c. $\quad 16$ miles
d. 24 miles
4. Brenda's dog has a mass of 26 pounds. What is the dog's mass in kilograms?

Answer: $\qquad$
5. Marcella divided 40.8 gallons of paint among 8 containers. How much paint is in each container?

Answer: $\qquad$
6. A $10-$ oz box of cereal costs $\$ 2.80$. A $13-$ oz box of the same brand of cereal costs $\$ 3.38$. Find the unit price of each item. In a complete sentence explain which is better to buy.

Answer: $\qquad$

Explanation: $\qquad$
$\qquad$
$\qquad$
7. Paula learned to play a total of 10 pieces over the course of 5 weeks of piano lessons. In all, how many weeks of piano lessons will Paula need before she will be able to play a total of 18 pieces?

Answer: $\qquad$

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1. At a bake sale, a dozen cookies sold for $\$ 4$. This price was $80 \%$ of the original price. What was the original price?

Answer: $\qquad$
2. Lisa has $\$ 200$ in her savings account. This is $40 \%$ of the money she needs to take a weekend trip. What is the total cost of the trip she wants to take?

Answer: $\qquad$
3. There were 8 students on a field trip. While outside, $75 \%$ of the students wore jackets. How many students wore jackets?

Answer: $\qquad$
4. Of the 390 students at Central Middle School, $20 \%$ are on the honor roll. How many students are on the honor roll?

Answer: $\qquad$
5. Everyone in Sandy's class has to do a science project. Out of 50 students, $56 \%$ have completed their projects. How many students still need to do their projects?

Answer: $\qquad$
6. $80 \%$ of the 30 girls at the party wanted to dance with Josh. How many girls wanted to dance with Josh?
a) 20
b) 21
c) 24
d) 27
7. The sixth-grade science class found that $20 \%$ of the students in the school had blue eyes. If there were 800 students in the school, how many had blue eyes?
a) 130
b) 140
c) 150
d) 160
8. 9 is $75 \%$ of what number?
a) 6
b) 8
c) 15
d) 12

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1. Use the double number line to find the missing numbers.

80 is $25 \%$ of what number?

Answer: $\qquad$

2. A store is having a sale where winter clothes are $60 \%$ of the original price. A sweater is on sale for $\$ 30$. What was the original price of the sweater?

Answer: $\qquad$
3. At a zoo, an Asian elephant eats roughly $5 \%$ of its body weight each day. If an Asian elephant eats 300 pounds of food a day, how much does it weigh?
a) $1,500 \mathrm{lb}$.
b) $6,000 \mathrm{lb}$.
c) $18,000 \mathrm{lb}$.
d) $120,000 \mathrm{lb}$.
8. Country music makes up $75 \%$ of Mrs. Shaffer's music library. If she has downloaded 90 country music songs, how many songs does Mrs. Shaffer have in her music library?

Answer: $\qquad$
9. Peyton spent $60 \%$ of her money to buy a new television. If the television cost $\$ 300$, how much money did she have?

Answer: $\qquad$
6. Ken calculates that he spends $15 \%$ of a school day in science class. If he spends 75 minutes in science class, how many minutes does Ken spend in school?

Answer: $\qquad$
7. The number of blueberry muffins that a baker makes each day is $40 \%$ of the total number of muffins she bakes for the day.

Part A: On Monday, the baker makes 36 blueberry muffins. What is the total number of muffins that the baker makes on Monday?

Answer: $\qquad$

Part B: On Tuesday, the baker makes a total of 60 muffins. How many blueberry muffins does the baker make on Tuesday?

Answer: $\qquad$

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1. At Britney's Beading Boutique, $80 \%$ of the 85 beads on clearance are plastic. How many plastic beads are there on clearance?

Answer: $\qquad$
2. Julie took a math quiz last week. There were 5 problems on the quiz and Julie answered $60 \%$ of them correctly. How many problems did Julie get correct?

Answer: $\qquad$
3. Last Wednesday, students could choose ham or turkey sandwiches for lunch. The cafeteria made 70 sandwiches in all, $20 \%$ of which were turkey. How many turkey sandwiches did the cafeteria make?

Answer: $\qquad$
4. Last night, the two dinner specials at Carl's favorite restaurant were salmon filet and steak. The restaurant served 12 specials in all, 3 of which were the salmon filet. What percentage of the specials were salmon filets?

Answer: $\qquad$
5. For a company picnic, Dan ordered a box of fresh-baked gingerbread cookies and sugar cookies. He got 16 cookies in all. 12 of the cookies were gingerbread. What percentage of the cookies were gingerbread?

Answer: $\qquad$
6. In hopes of encouraging healthier snacks at school, Albert brought in a tray of carrot sticks and apple slices to share. He brought 70 snacks in all. 35 of the snacks were carrot sticks. What percentage of the snacks were carrot sticks?

Answer: $\qquad$

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1. Adam has 12 action, 15 comedy, and 9 drama DVDs. Find the ratio of action DVDs to the total number of DVDs. Write your ratio in simplest form.

Answer: $\qquad$
2. A basketball player signs a contract that pays him $\$ 16$ million over 4 years. What is his average pay per year?

Answer: $\qquad$
3. In a parking lot, 3 out of 8 vehicles were trucks. If there were 128 vehicles, complete the ratio table to find the number of trucks.

| Number of Trucks | 3 |  |
| :---: | :---: | :---: |
| Number of Vehicles | 8 | 128 |

Answer: $\qquad$
4. Isabelle bought 12 wallet-sized photos for $\$ 36$. Use a ratio table to determine how much she will pay for 5 more photos.

| Number of Photos | 12 |  | 5 |
| :---: | :---: | :---: | :---: |
| Cost of Photos | 36 |  |  |

Answer: $\qquad$
5. The temperature rose $4^{\circ} \mathrm{F}$ every 90 minutes before noon and rose $2^{\circ} \mathrm{F}$ every 45 minutes after noon. Are these rates equivalent?

Answer: $\qquad$
6. Stacey made 8 necklaces in 48 minutes. Nick made 4 necklaces in 24 minutes. Is the rate at which they made necklaces equivalent? ? In a complete sentence explain your reasoning.

Answer: $\qquad$

Explanation: $\qquad$
7. In the sixth grade, 12 out of 27 students have a dog. If there are 162 students, how many would have a dog?

Answer: $\qquad$
8. Mrs. Jim's garden is 20 meters long. How many inches is this? Use the conversion table below to help you find your answer.

CONVERSIONS

```
1 inch = 2.54 centimeters
1 meter = 39.37 inches
1 mile=5,280 feet
1 mile = 1,760 yards
1 \text { mile = 1.609 kilometers}
\[
\begin{aligned}
& 1 \text { kilometer }=0.62 \text { mile } \\
& 1 \text { pound }=16 \text { ounces } \\
& 1 \text { pound }=0.454 \text { kilogram } \\
& 1 \text { kilogram }=2.2 \text { pounds } \\
& 1 \text { ton }=2,000 \text { pounds }
\end{aligned}
\]
                                    1 pint = 2 cups
                                    1 quart = 2 pints
                                    1 gallon = 4 quarts
                                    1 gallon = 3.785 liters
                                    1 liter = 0.264 gallon
                                1 \text { liter = 1,000 cubic centimeters}
```

```
                                    1 cup = 8 fluid ounces
```

```
                                    1 cup = 8 fluid ounces
```

Answer: $\qquad$
9. Emily's monthly income is $30 \%$ more than Lisa's monthly income. Emily's monthly income is $\$ 3,600$. What is Lisa's monthly income?

Answer: $\qquad$
10. In a school, $25 \%$ of the teachers teach basic math. If there are 50 basic math teachers, how many teachers are there in the school?

Answer: $\qquad$

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1. The table below shows how Eva budgets her weekly allowance. Write each decimal as a fraction in simplest form.

| Category | Portion |
| :---: | :---: |
| Savings | 0.4 |
| Charity | 0.15 |
| Shopping | 0.45 |

Answer: $\qquad$
2. Jonah's savings increased by $15 \%$ in one month. Write $15 \%$ as a decimal and fraction in simplest form.

Answer: $\qquad$
3. An executive of a marshmallow company said that the marshmallows are $80 \%$ air. What fraction of a marshmallow is air? Write your answer in simplest form.

Answer: $\qquad$
4. Miguel spent $\frac{1}{8}$ of his savings on a new video game system. Mila spent $12 \%$ of her savings on a DVD, and Manny spent 0.1 of his savings on a skateboard. Who spent the most of their savings?

Answer: $\qquad$
5. In one year, Orlando received 62.51 inches of rain. In September, the city received $25 \%$ of that rainfall. About how much rain did Orlando receive in September?

Answer: $\qquad$
6. The original price of a movie is $\$ 18$. The sale price is $20 \%$ off the original price. What is the amount off the original price?

Answer: $\qquad$
7. Which is the better buy? 2 liters of Milk at $\mathbf{\$ 3 . 8 0}$ or $\mathbf{1 . 5}$ liters of Milk at $\mathbf{\$ 2 . 7 0}$

Answer: $\qquad$
8. Tonya works 60 hours every 3 weeks. At that rate, how many hours will she work in 12 weeks?

Answer: $\qquad$
9. As part of a class project, Ben collected $\$ 180$ in donation for a local charity. That amount was $40 \%$ of the total amount collected by the class. How much money did the class collect in all?

Answer: $\qquad$
10. Complete the ratio table below and then graph your answers on the coordinate plane.

| x <br> Numerator | y <br> Denominator |
| :---: | :---: |
| 3 | 7 |
|  |  |
| 9 | 21 |
|  |  |
|  |  |


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Name: $\qquad$ Date: $\qquad$ Period: $\qquad$
You must show all your work for each problem including the multiple choice questions to receive credit!

1. The ratio of men to woman on a city bus is 3 to 4 . There are 28 total people on the city bus. If 4 woman get off the bus what is the new ratio of men to woman in simplest form? Draw a tape diagram to solve the problem.

Answer: $\qquad$
2. Part A: Complete the following data table.

| Gas Mileage |  |
| :---: | :---: |
| Miles | Gallons of Gas |
| 56 | 1 |
| 84 | 2 |
| 112 | 4 |

Part B: How far can a car travel on 1 gallon of gasoline?

Answer: $\qquad$

Part C: If you continued at the same rate, how many gallons of gas would you need to travel 168 miles?

Answer: $\qquad$
3. April's weekly allowance is $15 \%$ more than Heather's weekly allowance. April's weekly allowance is $\$ 20$. What is Heather's weekly allowance? Show all your work.

Answer: $\qquad$
4. Complete the table and then use the data to graph for the following situation:

The school has 2 teachers for every 18 students.

| Teachers in the School |  |
| :---: | :---: |
| Teachers | Students |
| 2 | 18 |
| 4 |  |
| 6 |  |
| 8 |  |
| 10 |  |



Use the conversion chart below to answer the question.

| CONVERSIONS |  |  |
| :--- | :--- | :--- |
|  |  |  |
| 1 inch $=2.54$ centimeters | 1 kilometer $=0.62$ mile | 1 cup $=8$ fluid ounces |
| 1 meter $=39.37$ inches | 1 pound $=16$ ounces | 1 pint $=2$ cups |
| 1 mile $=5,280$ feet | 1 pound $=0.454$ kilogram | 1 quart $=2$ pints |
| 1 mile $=1,760$ yards | 1 kilogram $=2.2$ pounds | 1 gallon $=4$ quarts |
| 1 mile $=1.609$ kilometers | 1 ton $=2,000$ pounds | 1 gallon $=3.785$ liters |
|  |  | 1 liter $=0.264$ gallon |
|  | 1 liter $=1,000$ cubic centimeters |  |
|  |  |  |
|  |  |  |
|  |  |  |

5. Kyle lives 18 kilometers away from his grandmother. How many miles is this? Show all your work. Round your answer to the nearest tenth.

Answer: $\qquad$
6. Mike bought 8 pieces of candy at the grocery store. This was $25 \%$ of the items he purchased at the grocery store. How many items did Mike purchase at the grocery store?

Answer: $\qquad$
7. The ratio of dancing monkeys to dancing bears in a circus is $4: 1$. If there are 7 bears, how many monkeys are there?

Answer: $\qquad$


> monkeys
> bears
8. Lem and his sister Ada are selling juice for a fundraiser. For every 3 cups Lem sells Ada sells 2. If Lem sold 27 cups of juice, how many cups did Ada sell?

Answer: $\qquad$


