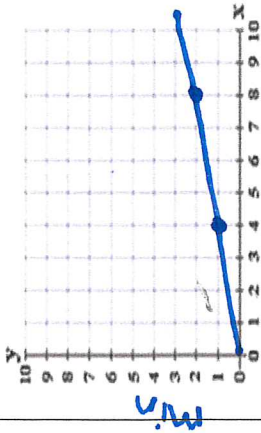


The ratio of pages to minutes of Aniya's reading is 4 to 1. Draw the graph that would match the relationship where the number of pages is represented by the x-values and the number of minutes is represented by the y-values.



Pages	min
4	1
8	2
12	3
16	4

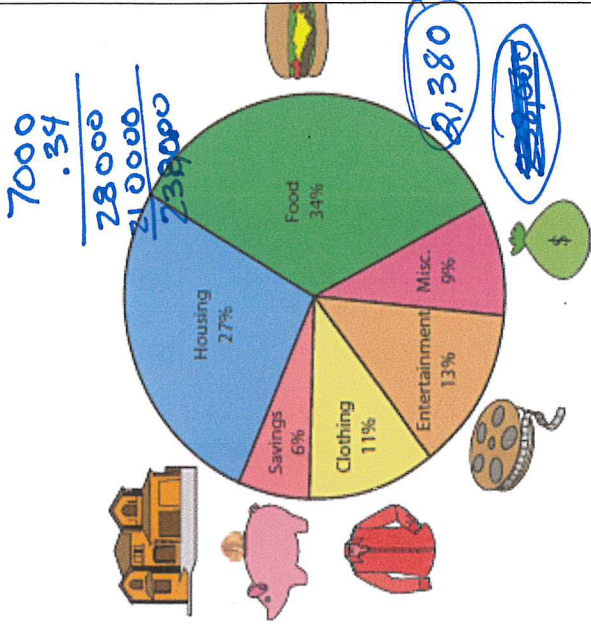
Adrian is trying to identify a number. He knows the following properties of the unknown numbers:

- The opposite of the unknown number is 12 **-12**
- The absolute value of the unknown number is 12 **12 or -12**

What is the unknown number Adrian is trying to identify?

-12

Ms. Wesson's family expenses are \$7,000 a month. A pie chart of her expenses is below. How much does she pay for Food?



A Texas builder sold 76.3% of their homes last year. Which of the following shows a fraction and a decimal equivalent to 76.3%?

$\frac{763}{1000}$

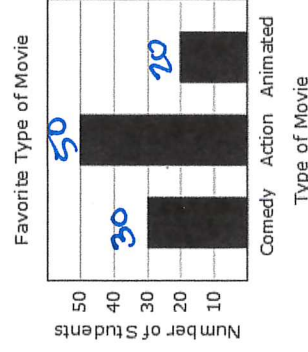
E. $\frac{763}{10,000}$ and 0.763

F. $\frac{763}{100}$ and 7.65

G. $\frac{76.3}{100}$ and 76.3

H. $\frac{763}{1000}$ and 0.763

Bailey surveyed a group of students to choose their favorite type of movie from the categories of action, comedy, and animated. The results of the survey are shown in the graph.



Based on the graph, how many students would be expected to choose animated or action as their favorite type of movie if there were 450 students in the class?

315

Carrie mixes her lemonade using 3.75 cups of sugar for every 15 lemons. Nate mixes his lemonade using 2.5 cups of sugar for every 10 lemons.

Which statement regarding the ratios of cups of sugar to numbers of lemons in Carrie's lemonade and Nate's lemonade is true?

- A) Carrie's lemonade tastes the same as Nate's lemonade, because 3.75:15 and 2.5:10 are not equivalent ratios.**
- B) Carrie's lemonade tastes the same as Nate's lemonade, because 3.75:15 and 2.5:10 are not equivalent ratios.
- C) Carrie's lemonade tastes the same as Nate's lemonade, because 3.75:15 and 10:2.5 are equivalent ratios.
- D) Carrie's lemonade tastes the same as Nate's lemonade, because 3.75:15 and 10:2.5 are not equivalent ratios.

3.75
sugar $\frac{3.75}{15}$
lem 15
 ~~$\frac{2.5}{10}$~~
 $\frac{2.5}{10}$
 $\frac{37.5}{100}$

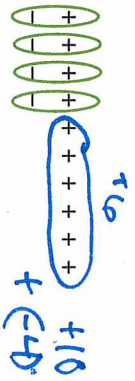
Which of the following is an equivalent rate to 4.2 miles in 33.6 minutes?

- A. Running 1 mile in 0.125 minutes.
- B. Running 1 mile in 0.8 minutes.
- C. Running 8.4 miles in 16.8 minutes.
- D. 3.5 miles in 28 minutes.

$$\frac{4.2 \text{ miles}}{8 \text{ min}} = \frac{1}{8} \times \frac{3.5}{28}$$

Handwritten notes: $\div 4.2$, $\times 3.5$

Mrs. Smith used integer chips to model and solve a problem.



Which equation did he model?

- F. $-10 + 4 = -6$
- G. $10 - 4 = 14$
- H. $10 + (-4) = 6$
- J. $10 + (-4) = -6$

Corneilus has complete $\frac{5}{8}$ of his math homework. What percentage is equivalent to the given fraction of his math homework he has completed?

- F. 6.25%
- G. 5.8%
- H. 40%
- J. 62.5%

$$\frac{5}{8} = .625 = 62.5\%$$

$$\frac{4}{8} = \frac{1}{2} = .50 = 50\%$$

The table shows the length of 5 pieces of rope in millimeters and meters.

Meters	millimeters
32.6	32,600
25	25,000
8	8,000
13.75	13,750

Another piece of rope is 18.5 meters. What is the length of the 5th rope in millimeters?

- A. 185,000 meters
- B. 1,850 meters
- C. 185 meters
- D. 18,500 meters

A school reporter surveyed a sample of seventh grade boys about their favorite food. Fifty-five percent, or 44 boys, selected Spaghetti as their favorite food. How many boys did the reporter survey?

- A. 27 boys
- B. 90 boys
- C. 125 boys
- D. 80 boys

$$\frac{11}{20} = \frac{55}{100} = \frac{44}{80}$$

$$\frac{55}{100} \times 80 = \frac{4400}{100} = 44$$

A scientist mixed 10 ml of solution A with ever $1\frac{1}{4}$ ml of solution B to make a new solution with a new concentration. Which ratio of ml of solution A to Solution B will make a new solution with the same concentration?

- A. 5 : 40
- B. 80 : 10
- C. $12 : 2\frac{1}{4}$
- D. $15 : 6\frac{1}{9}$

$$10 \text{ mL A} : 1.25 \text{ mL B} = 5 \text{ mL A} : .625 \text{ B} = 80 \text{ mL A} : 10$$

6. Which representation is NOT equivalent to $\frac{5}{2}$?

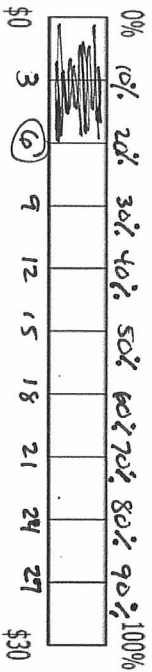
- F. $D \rightarrow P$
- F. 2.5 ✓
- G. $2\frac{1}{2}$ ✓
- H. ✓
- J. 250% ✓

Which of the following is NOT equivalent to two quarts?

- F. 64 fluid ounces ✓
- G. 8 cups ✓
- H. 4 pints ✓
- J. $\frac{1}{2}$ gallon ✓

$$\frac{4 \text{ quarts}}{8} = \frac{1}{2} \text{ gallon}$$

T. J. and Lindsey's lunch cost \$30. They want to leave a 20% tip for their waiter. Use the model below to determine the amount of the tip



Which amount is the closest to the amount of the tip that T.J. and Lindsey will leave for their waiter?

- A) \$36.00
 B) \$6.00
 C) \$20.00
 D) \$3.00
- OR $\frac{20}{100} \times 30 = 6$

The table shows the time Pedro took to run laps around the school track.

Number of Laps	4	8	12	14	16
Time (minutes)	22	44	66	77	80

Based on the information in the table, how long will it take Pedro to run 14 laps?

- A) 2.55 minutes
 B) 77 minutes
 C) 5.5 minutes
 D) 88 minutes

laps $\frac{4}{22} = \frac{2}{11} \times \frac{7}{7} = \frac{14}{77}$
 Time 22

Which of the following is an equivalent rate to running 5.4 miles in 43.2 minutes?

- A) Running 1 mile in 0.125 minutes
 B) Running 1 mile in 0.8 minutes
 C) Running 10.8 miles in 21.6 minutes
 D) Running 3.5 miles in 28 minutes

miles | 5.4 | 1 | 3.5
 min | 43.2 | 8 | 28

$\div 5.4$ $\times 3.5$

$5.4 \div 43.2 = 0.125$
 $3.5 \div 28 = 0.125$

A cookie recipe calls for $2\frac{1}{4}$ cups of flour and $1\frac{1}{2}$ cups of sugar. If the amount of the ingredients are increased proportionally and the amount of sugar was increased to 9 cups, how many cups of flour would be needed?

- A) 6
 B) $8\frac{1}{4}$
 C) $9\frac{3}{4}$
 D) $13\frac{1}{2}$
- $9 \cdot \frac{6}{1} = \frac{54}{4} = 13\frac{1}{2}$

Flour	$2\frac{1}{4}$	$13\frac{1}{2}$
Sugar	$1\frac{1}{2}$	9

$\times 6$

Lillie's grandmother is making potato salad for a family reunion. She uses three potatoes for every 2 people who will attend the dinner. If she expects 24 people to attend the reunion, which proportion can be used to determine p, the number of potatoes needed for the dinner?

~~$\frac{3}{2} = \frac{p}{24}$~~
 ~~$\frac{3}{2} = \frac{24}{p}$~~
 ~~$\frac{3}{24} = \frac{p}{2}$~~
 ~~$\frac{3}{24} = \frac{2}{p}$~~

$\frac{3}{2} = \frac{24}{p}$

During the first 7 plays of a football game, the team made the following yardage: +3, -8, +14, -4, +25, +7, and -10. What was the net yardage?

- A) -49 yd
 B) -22 yd
 C) 27 yd
 D) 49 yd

$\frac{2}{3} = \frac{24}{p}$

$2 \times 24 = 3 \times p$
 $48 = 3p$
 $16 = p$

Every day after school, Jenna rides her bicycle to her home, which is a distance of 4.2 kilometers. Which proportion can be used to convert 4.2 kilometers to meters?

A $\frac{4.2 \text{ km}}{1,000 \text{ m}} = \frac{x}{1 \text{ km}}$

B $\frac{1,000 \text{ m}}{4.2 \text{ km}} = \frac{1 \text{ km}}{x}$

C $\frac{1 \text{ km}}{1,000 \text{ m}} = \frac{4.2 \text{ km}}{x}$

D $\frac{1,000 \text{ m}}{1 \text{ km}} = \frac{4.2 \text{ km}}{x}$

4.2

$\frac{1 \text{ km}}{1000 \text{ m}} = \frac{4.2 \text{ km}}{x}$

Abby bought one package of cookies that weighed 24 ounces and another package that weighed 2 pounds 2 ounces. What was the combined weight of the two packages of cookies she bought?

A 2 pounds 24 ounces

B 3 pounds 10 ounces

C 5 pounds 2 ounces

D 4 pounds 2 ounces

$16 \text{ oz} = 1 \text{ lb}$

$24 \text{ oz} =$

$1 \text{ lb } 8 \text{ oz}$

$+ 2 \text{ lb } 2 \text{ oz}$

$3 \text{ lb } 10 \text{ oz}$

3) Sarah lives 7.15 kilometers away from her middle school. Which fraction represents the distance from Sarah's house to her school?

A) $7\frac{3}{20}$

B) $7\frac{1}{15}$

C) $7\frac{1}{5}$

D) $7\frac{15}{20}$

$7\frac{15}{100} = 7\frac{3}{20}$

$\frac{15}{100} \div 5 = \frac{3}{20}$

Ronald and Silvia are each trying to save \$400. Ronald has saved $\frac{3}{10}$ of his goal, and Silvia still has 30% left to save to reach her goal. Which statement about how much more money Ronald and Silvia have left to save is true?

$\frac{3}{10} = \frac{?}{400} = \frac{120}{400}$

saved \$120 so has \$280 left

Silvia has \$120 left so saved \$280

A Ronald and Silvia each have \$120 left to save.

B Ronald has more left to save than Silvia because he has \$280 left to save and Silvia has \$120 left to save.

C Ronald and Silvia each have \$280 left to save.

D Ronald has less left to save than Silvia because he has \$120 left to save and Silvia has \$280 left to save.

A shade of green paint is created by mixing a certain amount of yellow paint with a certain amount of blue paint.

The ratio of yellow to blue paint is 3:7.

Based on this ratio, how much yellow paint would be needed to prepare 5 gallons of green paint? Show your work to explain your solution process.

$3:7 = 1 \text{ (green)} \times 5$
 $15:35$

Caroline saved \$3.84 on a discounted item that was marked down 15% off of the original price of the item. What was the original price of the item before the discount?

- A) \$57.60
- B) \$18.84
- C) \$4.42
- D) \$25.60

$15\% \div 5 = 3.84$

$\frac{15}{100} = \frac{3.84}{x}$

$\frac{100 \times 3.84}{15}$

$\frac{384}{15} = 25.6$