

For a person m miles from a flash of lightning, the length of the time interval from the moment the person sees the lightning to the moment the person hears the thunder is k seconds. The ratio of m to k can be estimated to be 1 to 5. According to this estimate, the person is how many miles from a flash of lightning if the time interval is 25 seconds?

- A. 10
- B. 9
- C. 6
- D. 5

A group of monarch butterflies migrated from Chicago, Illinois, to Michoacán, Mexico, flying a total of 2,100 miles. It took a single butterfly in the group 120 days to travel this route one way. On average, how many miles did the butterfly travel per day?

- A. 0.057
- B. 0.729
- C. 17.5
- D. 24

In a box of pens, the ratio of black pens to red pens is **8** to **1**. There are **40** black pens in the box. How many red pens are in the box?

- A. **5**
- B. **8**
- C. **40**
- D. **320**

The population density of Worthington is **290** people per square mile. Worthington has a population of **92,800** people. What is the area, in square miles, of Worthington?

- A. **102,400**
- B. **93,090**
- C. **320**
- D. **32**

A wind turbine completes **900** revolutions in **50** minutes. At this rate, how many revolutions per minute does this turbine complete?

- A. **18**
- B. **850**
- C. **950**
- D. **1,400**

x	y
1	4
3	12
5	20
40	k

In the table above, the ratio of y to x for each ordered pair is constant. What is the value of k ?

- A. 28
- B. 36
- C. 80
- D. 160

The ratio of t to u is 1 to 2, and $t = 10$.

What is the value of u ?

- A. 2
- B. 5
- C. 10
- D. 20

ID: 2d16d62c

A special camera is used for underwater ocean research. When the camera is at a depth of **58** fathoms, what is the camera's depth in feet? (**1 fathom = 6 feet**)

How many yards are equivalent to **612** inches? (**1 yard = 36 inches**)

- A. **0.059**
- B. **17**
- C. **576**
- D. **22,032**

Shaquan has 7 red cards and 28 blue cards. What is the ratio of red cards to blue cards that Shaquan has?

- A. 1 to 4
- B. 4 to 1
- C. 1 to 7
- D. 7 to 1

A cherry pitting machine pits **12** pounds of cherries in **3** minutes. At this rate, how many minutes does it take the machine to pit **96** pounds of cherries?

- A. **8**
- B. **15**
- C. **24**
- D. **36**

A kangaroo has a mass of **28** kilograms. What is the kangaroo's mass, in grams? (**1 kilogram = 1,000 grams**)

- A. **28,000**
- B. **1,028**
- C. **972**
- D. **784**

The weight of an object on Venus is approximately $\frac{9}{10}$ of its weight on Earth. The weight of an object on Jupiter is approximately $\frac{23}{10}$ of its weight on Earth. If an object weighs 100 pounds on Earth, approximately how many more pounds does it weigh on Jupiter than it weighs on Venus?

- A. 90
- B. 111
- C. 140
- D. 230

ID: d0d9ede4

How many feet are equivalent to **34** yards? (**1 yard = 3 feet**)

To make a bakery's signature chocolate muffins, a baker needs 2.5 ounces of chocolate for each muffin. How many pounds of chocolate are needed to make 48 signature chocolate muffins? (1 pound = 16 ounces)

- A. 7.5
- B. 10
- C. 50.5
- D. 120

A fish swam a distance of **5,104** yards. How far did the fish swim, in miles? (**1 mile = 1,760 yards**)

- A. **0.3**
- B. **2.9**
- C. **3,344**
- D. **6,864**

Marta has 7,500 pesos she will convert to US dollars using a currency exchange service. At this time, the currency exchange rate is 1 peso = 0.075 US dollars. The exchange service will charge Marta a 2% fee on the converted US dollar amount. How many US dollars will Marta receive from the currency exchange after the 2% fee is applied?

- A. \$551.25
- B. \$562.50
- C. \$5,625.00
- D. \$98,000.00

Tilly earns p dollars for every w hours of work. Which expression represents the amount of money, in dollars, Tilly earns for $39w$ hours of work?

A. $39p$

B. $\frac{p}{39}$

C. $p + 39$

D. $p - 39$

Makayla is planning an event in a 5,400-square-foot room. If there should be at least 8 square feet per person, what is the maximum number of people that could attend this event?

- A. 588
- B. 675
- C. 15,274
- D. 43,200

If $t = 4u$, which of the following is equivalent to $2t$?

A. $8u$

B. $2u$

C. u

D. $\frac{1}{2}u$

How many teaspoons are equivalent to ~~44~~ tablespoons? (**3 teaspoons = 1 tablespoon**)

- A. ~~47~~
- B. ~~88~~
- C. **132**
- D. **176**

The ratio x to y is equivalent to the ratio 12 to t . When $x = 156$, what is the value of y in terms of t ?

- A. $13t$
- B. $12t$
- C. $144t$
- D. $168t$