

#1

ID: 3c8fdc40

A printer produces posters at a constant rate of 42 posters per minute. At what rate, in posters per hour, does the printer produce the posters?

#2

ID: 3f5398a6

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

#3

ID: 86636d8f

A customer spent \$ 27 to purchase oranges at \$ 3 per pound. How many pounds of oranges did the customer purchase?

#4

ID: fe4c1c9e

A mechanical device in a workshop produces items at a constant rate of 60 items per hour. At this rate, how many items will the mechanical device produce in 3 hours?

#5

ID: 000259aa

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

#6

ID: 312ba47c

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

#7

ID: 15617f62

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

#8

ID: be35c117

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

#9

ID: e3d49511

The number of raccoons in a 131-square-mile area is estimated to be 2,358. What is the estimated population density, in raccoons per square mile, of this area?

- A) 18
- B) 131
- C) 149
- D) 2,376

#10

ID: 3f236a64

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

#11

ID: da9ffc6

The ratio of the length of line segment XY to the length of line segment ZV is 6 to 1. If the length of line segment XY is 102 inches, what is the length, in inches, of line segment ZV ?

- A) 17
- B) 96
- C) 102
- D) 612

#12

ID: 6310adbc

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

#15

ID: e9841407

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

#13

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)

#16

ID: c81499e1

A giant armadillo has a mass of 39 kilograms. What is the giant armadillo's mass in **grams**?
(1 kilogram = 1,000 grams)

#14

ID: aeeaec96

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

- A) 0.059
- B) 17
- C) 576
- D) 22,032

#17

ID: 0700a2d5

How many yards are equivalent to 77 rods?
(5.5 yards = 1 rod)

#18

ID: fe1ec415

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

#19

ID: ba62b0b0

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

#20

ID: 7cd1c6db

An object travels at a constant speed of 12 centimeters per second. At this speed, what is the time, in seconds, that it would take for the object to travel 108 centimeters?

- A) 9
- B) 96
- C) 120
- D) 972

#21

ID: 24ad9dcb

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

#22

ID: d0d9ede4

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

#23

ID: 06a152cd

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

#24

ID: 85b33aa8

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

#27

ID: 7270d642

A certain bird species can fly at an average speed of 16 meters per second when in continuous flight. At this rate, how many meters would this bird species fly in 4 seconds?

- A) 64
- B) 20
- C) 16
- D) 12

#25

ID: 2cdefcb1

What length, in centimeters , is equivalent to a length of 51 meters? (1 meter = 100 centimeters)

- A) 0.051
- B) 0.51
- C) 5,100
- D) 51,000

#28

ID: 8bf3f67a

A special camera is used for underwater ocean research. The camera is at a depth of 39 fathoms. What is the camera's depth in feet ? (1 fathom = 6 feet)

- A) 234
- B) 117
- C) 45
- D) 7

#26

ID: 3ac09984

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

#29

ID: c47256ca

An object's speed is 64 yards per second. What is the object's speed, in feet per second? (1 yard = 3 feet)

- A) 61
- B) 67
- C) 94
- D) 192

#30

ID: 551c52b9

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) $p - 39$

#31

ID: 94660ba8

A participant in a bicycle race completes the race with an average speed of 24,816 yards per hour. What is this average speed, in miles per hour?
(1 mile = 1,760 yards)

#32

ID: 4837406c

An object travels at a constant speed of 6 centimeters per second. At this speed, what is the time, in seconds, that it would take for the object to travel 24 centimeters?

#33

ID: 99550621

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

#34

ID: 3318d37b

A product costs 11.00 dollars per pound. What is the cost, in dollars, for 6 pounds of the product?

#35

ID: 808f7d6c

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

- A) $8u$
- B) $2u$
- C) u
- D) $\frac{1}{2}u$

#36

ID: d7a3179d

How many yards are equivalent to 1,116 inches?
(1 yard = 36 inches)

#37

ID: 4347a032

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

- A) 47
- B) 88
- C) 132
- D) 176

#39

ID: 4e375d1f

How many meters are equivalent to 2,300 centimeters?
(100 centimeters = 1 meter)

- A) 0.043
- B) 23
- C) 2,400
- D) 230,000

#38

ID: 763e6769

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) $168t$