

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: bbfa4707



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**

Question ID 5216125e

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 5216125e

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

\$

3

27

P

1

9

//

Question ID e25aee5f

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: e25aee5f

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?

hour

1

3

item

60

180 //

Question ID 3fb7ca66

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 3fb7ca66

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

kg

1

39

g

1,000

39,000

//

Question ID 25f9c72c

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 25f9c72c



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**

Question ID 95333d9b

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 95333d9b

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

y                      m

1,760                  1

5,104                  2.9

//

Question ID fff446be

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: fff446be



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**)

Question ID cd1afde7

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: cd1afde7



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~~

Question ID 6aa7e316

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 6aa7e316

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?

~~X~~ 64

B. 20

C. 16

D. 12

S      m  
1      16  
4      64 //

Question ID 001a48b4

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 001a48b4

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

$$\begin{aligned} D &= \frac{2,358}{131} \\ &= 18 \end{aligned}$$

$$D = \frac{m}{V}$$

Question ID 87bb206b

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 87bb206b

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

$$\begin{array}{r} \text{r} \qquad \text{y} \\ 1 \qquad 5.5 \\ 77 \quad 423.5 \\ \qquad \qquad \qquad // \end{array}$$

Question ID 03d02396

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 03d02396

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

|    |    |
|----|----|
| P  | m  |
| 12 | 3  |
| 96 | 24 |

      //

Question ID 0d810cbe

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 0d810cbe

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

A. 0.059

~~B. 17~~

C. 576

D. 22,032

in      y

36      1

612      17

//

Question ID b156d1ac

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: b156d1ac

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~~

y f  
1 3  
64 192 //

Question ID 7f6c266c

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 7f6c266c

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.  $168t$

$$\frac{x}{y} = \frac{12}{t}$$

$$\frac{156}{y} = \frac{12}{t}$$

$$\begin{aligned} y &= \frac{156t}{12} \\ &= 13t // \end{aligned}$$

# Question ID 28c1d699

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 28c1d699

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?

$$\begin{array}{rcl} m & P & \\ 1 & 42 & \\ 60 & 2,520 & // \end{array}$$

Question ID 433a6af1

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 433a6af1

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)

f<sub>a</sub>

1

58

f<sub>e</sub>

6

348

//

# Question ID dc150731

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: dc150731



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

Question ID de1add26

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: de1add26

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

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

Cm

m

100

1

2,300

23

//

# Question ID 162af826

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 162af826



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

Question ID a26ec64e

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: a26ec64e



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**

Question ID 7203f371

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 7203f371

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?

cmS

61

244

//

# Question ID 734722b0

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 734722b0



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**

Question ID 4eaaf644

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 4eaaf644

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

fa      fe  
1      6  
39      234  
         //

Question ID 1f67ae69

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 1f67ae69

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?

- X

9

cmS

121

1089

//
- B. 96
- C. 120
- D. 972

Question ID 4168b08f

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 4168b08f

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.  $p - 39$

$$\begin{array}{cc} W & \$ \\ W & P \\ 39W & \frac{39W P}{W} = 39P // \end{array}$$

Question ID d9896b5b

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: d9896b5b



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

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

Question ID a7de288f

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: a7de288f

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

m      cm  
1      100  
51      5,100 //

Question ID 353d7e3a

| Assessment | Test | Domain                            | Skill                                                | Difficulty |
|------------|------|-----------------------------------|------------------------------------------------------|------------|
| SAT        | Math | Problem-Solving and Data Analysis | Ratios, rates, proportional relationships, and units | Easy       |

ID: 353d7e3a

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

in

36

1,116

y

1

31

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