



# MATHS

## BOOKS - PRINCETON MATHS (ENGLISH)

### STRATEGIES

#### Example

1. Jill spend  $x$  dollars on pet toys and 12 dollars on socks. If the amount jill spend was twice the

amount she earns each week, how much does jill earn each week in terms of  $x$ ?

A.  $2(x + 12)$

B.  $2x + 24$

C.  $\frac{x}{2} + 12$

D.  $\frac{x + 12}{2}$

**Answer: D**



**Watch Video Solution**

2. Kamberly and elizabeth are having lunch at a diner. The price of kimberly 's meal is  $z$  dollars, and the price of Elizabeth's meal is \$4 more than the price of Kimberly's meal. They decide to evenly share the cost of lunch, and a 10% tax is applied to the meal. Which of the following expressions represents the amount, in dollars, that each of them owes without tip?

A.  $0.1z + 4.0$

B.  $1.1z + 2.2$

C.  $2.2z + 4.4$

D.  $4, 2z + 0.1$

**Answer: B**



**Watch Video Solution**

**3.** At this bake sale, Mr. Heftwhistle sold 30% of his pies to one friend. Mr. Heftwhistle then sold 60% of the remaining pies to another friend. What percent of his original number of pies did Mr. Heftwhistle have left?

A. 10 %

B. 18 %

C. 28 %

D. 36 %

**Answer: C**



**Watch Video Solution**

4. If  $\frac{3(x - 1)}{2} = \frac{9}{x - 2}$ , what is the value of  $x$ ?

A.  $-4$

B.  $-2$

C. 1

D. 4

**Answer: D**



**Watch Video Solution**

5. A store sells shirts for \$7.50 each and hats for \$5.00 each. The store earns \$1,822.50 in one day from selling a total of 307 shirts and hats. How many shirts were sold on that day?

A. 37

B. 89

C. 115

D. 202

**Answer: C**



**Watch Video Solution**

**6.** Chris can run 3.6 miles in 44 minutes. If he continues to run at this pace, which of the

following is closest to the distance he will travel in 3 hours?

A. 5 miles

B. 10 miles

C. 15 miles

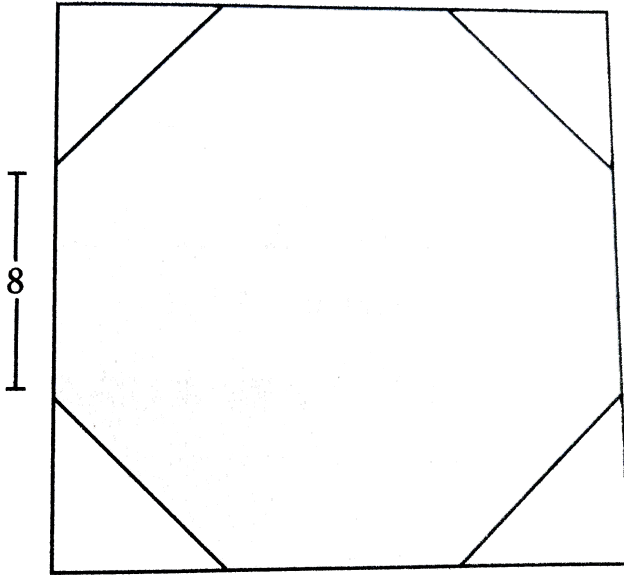
D. 20 miles

**Answer: C**



**Watch Video Solution**





7.

Johan receives an order for a carpet in the shape of a regular octagon with 8 inch sides.

The octagonal carpet will be cut out from a square piece of carpet, as shown in the figure above. What is the area of the one of the 4

congruent triangles that will be cut out from the square?

A. 16

B.  $16\sqrt{2}$

C.  $16\sqrt{3}$

D. 64

**Answer: A**



**Watch Video Solution**

1. If  $\frac{c-d}{c} = \frac{5}{8}$ , which of the following must also be true?

A.  $\frac{c-d}{d} = \frac{8}{5}$

B.  $\frac{d}{c} = \frac{13}{8}$

C.  $\frac{c+d}{c} = \frac{13}{8}$

D.  $\frac{c}{d} = \frac{8}{3}$

**Answer: D**



**View Text Solution**

2. If  $\frac{y}{3} = 6x$ , then in terms of  $y$ , which of the following is equivalent to  $x$ ?

A.  $2y$

B.  $y$

C.  $\frac{y}{2}$

D.  $\frac{y}{18}$

**Answer: D**



**View Text Solution**

3. If  $p = 4\sqrt{3q}$ , what is  $3q$ , in terms of  $p$ ?

A.  $\frac{p^2}{16}$

B.  $\frac{p^2}{4}$

C.  $16p^2$

D.  $\frac{p}{4}$

**Answer: A**



**View Text Solution**

4.  $2x + p = 7x - 3$ ,  $2y + q = 7y - 3$

In the above equations,  $p$  and  $q$  are constant.

If  $q$  is 5 less than  $p$ , which of the following statements is true?

- A.  $x$  is 1 less than  $y$
- B.  $x$  and  $y$  equal
- C.  $x$  is 1 more than  $y$ .
- D.  $x$  is 2 more than  $y$ .

**Answer: C**



Watch Video Solution

## Quick Quiz 2

1.  $V(y) = 15,000 \left( \frac{1}{2} \right)^{\frac{y}{3}}$

Leah buys a car, which loses value exponentially over time. The function  $v$  above models the value of car  $y$  years after Leah buys it. Based on the function above, which of the following is true?

A. the predicted value of Leah's car depreciates by a third every year.

B. the predicted value of Leah's car depreciates by a half every year

C. the predicted value of Leah's car depreciates by a third every 2 year.

D. the predicted value of Leah's car depreciates by a half every 3 year

**Answer: D**



**Watch Video Solution**



2. Which one of the following must be greater than  $x$ , if  $x$  is real number?

A.  $\frac{x}{4}$

B.  $4x$

C.  $x^2 + 1$

D.  $x^3 + 1$

**Answer: C**



**Watch Video Solution**

3. For all values of a, b, c, and d which of the following is equivalent to  $\frac{\frac{ad}{bc}}{\frac{ac}{bd}}$  ?

A.  $a^2c^2$

B.  $\frac{a^2}{b^2}$

C.  $\frac{d^2}{c^2}$

D.  $b^2d^2$

**Answer: C**



**Watch Video Solution**

## Quick Quiz 3

1. If 4 less than the product of  $b$  and 6 is 44, what is the value of  $b$ ?

A. 4

B. 6

C. 8

D. 14

**Answer: C**



[View Text Solution](#)

2. A store reduces the price of a CD player by 20% and then reduces that price by 15%. If the final price of the CD player is \$170, what was its original price?

A. 140

B. 185

C. 200

D. 250

**Answer: D**



Watch Video Solution

3. An annual interest rate of 5 percent is paid to a CD (certificate of deposit) account. If the account now had a balance of \$420.00, what was the balance of the account before the annual interest was paid?

A. 375

B. 393.85

C. 400

D. 419.85

**Answer: C**



**Watch Video Solution**

4. Which of the following is a solution to the equation  $y = \sqrt{15 - y} + 3$ ?

I. -1

II. 6

III. 11

A. II only

B. III only

C. I and II only

D. II and III only

**Answer: C**



**Watch Video Solution**

5. The expressions  $4x^2 - 12$  is equivalent too  $4(x + c)(x - c)$ . If  $c$  is a positive constant, what is the value of  $c$ ?

A.  $\sqrt{3}$

B. 3

C.  $\sqrt{12}$

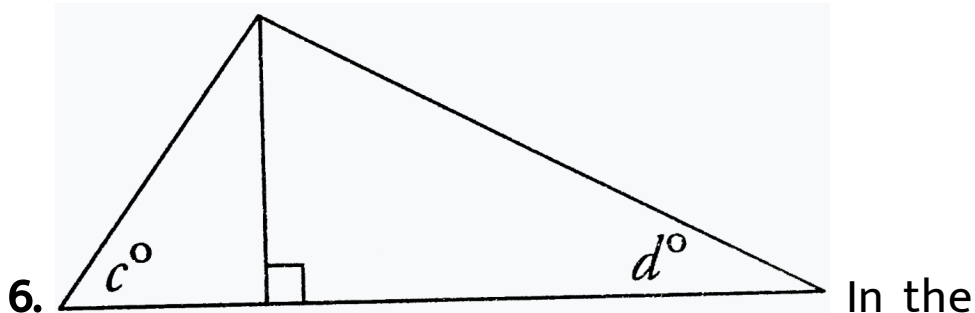
D. 12

**Answer: A**



**Watch Video Solution**





A. 3.3

B. 5.3

C. 10.3

D. 12.3

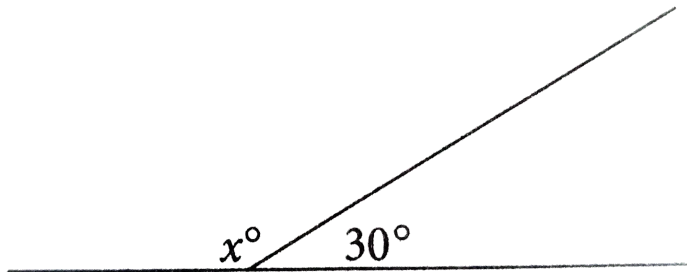
Answer: D



Watch Video Solution

## Quick Quiz 4

1.



Which

of the following is equal to  $3x$ ?

A. 50

B. 150

C. 360

D. 450

**Answer: D**



**Watch Video Solution**

## Quick Quiz 5

1. Which of the following values of  $b$  satisfies the equation  $4,500 = \frac{900}{b}$ ?

A. 0.2

B. 5

C. 90

D. 405

**Answer: A**



**Watch Video Solution**

**Quick Quiz 6**

1. Dan, Laura, and Jane went grocery shopping. Dan spent three times as much as Laura and half as much as Jane. If they spent a total of \$50 on groceries, how much did Jane spend?

A. 15

B. 25

C. 30

D. 45

**Answer: C**



Watch Video Solution

## Quick Quiz 7

1. Three numbers,  $a$ ,  $b$ , and  $c$ , have sum of 672.

The value of  $a$  is 25% less than the sum of  $b$  and  $c$ . What is the value of  $a$ ?

A. 97

B. 135

C. 288

D. 372

**Answer: C**



**Watch Video Solution**