

Algebra (And When to Use It) Drill

Now it's time to try out what you have learned on some practice questions. Try the following problems and then check your answers in Part V.

1 of 10

The original selling price of an item at a store is 40 percent more than the cost of the item to the retailer. If the retailer reduces the price of the item by 15 percent of the original selling price, then the difference between the reduced price and the cost of the item to the retailer is what percent of the cost of the item to the retailer?

Percent

Click on the answer box and type in a number.
Backspace to erase.

2 of 10

$$x^2 + 8x = -7$$

Quantity A x **Quantity B**

0

- Quantity A is greater.
- Quantity B is greater.
- The two quantities are equal.
- The relationship cannot be determined from the information given.

3 of 10

If $3^3 \times 9^{12} = 3^x$, what is the value of x ?

Click on the answer box and type in a number.
Backspace to erase.

4 of 10

If $A = 2x - (y - 2c)$ and $B = (2x - y) - 2c$, then $A - B =$

- $-2y$
- $-4c$
- 0
- $2y$
- $4c$

5 of 10

A merchant sells three different sizes of canned tomatoes. A large can costs the same as 5 medium cans or 7 small cans. If a customer purchases an equal number of small and large cans of tomatoes for the same amount of money needed to buy 200 medium cans, how many small cans does she purchase?

- 35
- 45
- 72
- 199
- 208

6 of 10

If $6k - 5l = 27$ and $3l - 2k = -13$ and $5k - 5l = j$, what is the value of j ?

Click on the answer box and type in a number.
Backspace to erase.

7 of 10

If a is multiplied by 3 and the result is 4 less than 6 times b , what is the value of $a - 2b$?

- 12
 $-\frac{4}{3}$
 $-\frac{3}{4}$
 $\frac{4}{3}$
 12

8 of 10

Quantity A

$$\frac{2^{-4}}{4^{-2}}$$

Quantity B

$$\frac{\sqrt{64}}{-2^3}$$

- Quantity A is greater.
 Quantity B is greater.
 The two quantities are equal.
 The relationship cannot be determined from the information given.

9 of 10

$$11x + 14y = 30 \text{ and } 3x + 4y = 12$$

Quantity A

$$x + y$$

Quantity B

$$(x + y)^{-2}$$

- Quantity A is greater.
 Quantity B is greater.
 The two quantities are equal.
 The relationship cannot be determined from the information given.

10 of 10

If $x = 3a$ and $y = 9b$, then all of the following are equal to $2(x + y)$ EXCEPT

- $3(2a + 6b)$
 $6(a + 3b)$
 $24\left(\frac{1}{4}a + \frac{3}{4}b\right)$
 $\frac{1}{3}(18a + 54b)$
 $12\left(\frac{1}{2}a + \frac{3}{4}b\right)$