



When a letter is used in algebra to represent a missing value it is called a **variable**.

An **equation** shows when two things are equal using the equals sign.

$$63 + a = 79$$

↑
Variable

$$45 + y = 59$$

⏟
Equation

The multiplication sign is not used in algebra. The number is always written in front of the variable.

The division sign is not used in algebra. A fraction line is used to show that you divide the top by the bottom.

$$3y = 12$$

$$\frac{20}{g} = 5$$

Determine the value of the variable in each equation.

A) $a + 5 = 9$
 $a = \underline{\hspace{2cm}}$

B) $15 - c = 12$
 $c = \underline{\hspace{2cm}}$

C) $\frac{121}{j} = 11$
 $j = \underline{\hspace{2cm}}$

D) $9 + 15 = y$
 $y = \underline{\hspace{2cm}}$

E) $\frac{45}{d} = 5$
 $d = \underline{\hspace{2cm}}$

F) $10z = 100$
 $z = \underline{\hspace{2cm}}$

G) $6 + a = 12$
 $a = \underline{\hspace{2cm}}$

H) $7 - b = 2$
 $b = \underline{\hspace{2cm}}$

I) $\frac{q}{8} = 5$
 $q = \underline{\hspace{2cm}}$

J) $11 + 14 = c$
 $c = \underline{\hspace{2cm}}$

K) $\frac{24}{d} = 3$
 $d = \underline{\hspace{2cm}}$

L) $10e = 110$
 $e = \underline{\hspace{2cm}}$

M) $4m = 32$
 $m = \underline{\hspace{2cm}}$

N) $\frac{72}{n} = 9$
 $n = \underline{\hspace{2cm}}$

O) $33 + 66 = p$
 $p = \underline{\hspace{2cm}}$

P) $3s = 9$
 $s = \underline{\hspace{2cm}}$

Q) $\frac{16}{h} = 1$
 $h = \underline{\hspace{2cm}}$

R) $15 + 12 = q$
 $q = \underline{\hspace{2cm}}$

★ $5 + r = 14 - 3$

★ $11 + 4 = 3s$

★ $4 + f = 13 - 2$

★ $5 + 3 = 4d$

$r =$ _____

$s =$ _____

$f =$ _____

$d =$ _____

Evaluate each expression.

$a = 3, \quad b = 5, \quad c = 6$

1. $a + 5$ total =

2. $15 - c$ total =

3. $4b$ total =

4. $\frac{18}{c}$ total =

5. $20 - a$ total =

6. $11b$ total =

7. $\frac{45}{b}$ total =

8. $a - 2$ total =

9. $a + b + c$ total =

10. $\frac{c}{a}$ total =



Riddle Me This Pre-Algebra

Solve for 'x'. Write the corresponding letter in the space below that matches your answer.



1. $10 + x = 15$ **A**

$x =$

2. $2x + 7 = 9$ **I**

$x =$

3. $3 + 2x = 15$ **B**

$x =$

4. $x - 5 = 3$ **K**

$x =$

5. $2x - 4 = 4$ **C**

$x =$

6. $5 + 3x = 14$ **M**

$x =$

7. $2 + 3x = 8$ **E**

$x =$

8. $3x - 9 = 12$ **R**

$x =$

9. $9 + x = 18$ **G**

$x =$

10. $11 + 2x = 31$ **S**

$x =$

What do ghosts serve for dessert?

-

1

10

4

7

2

5

3