



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

★  $5 + r = 14 - 3$

★  $11 + 4 = 3s$

★  $4 + f = 13 - 2$

★  $5 + 3 = 4d$

$r = \underline{\hspace{2cm}}$

$s = \underline{\hspace{2cm}}$

$f = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

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