

Basic Equations

Understand what a basic equation is and how to solve it using "cover up"

Example :- Look at this simple statement (an equation).

$$8 + * = 12 \quad \text{what does the "*" stand for?}$$

=> By using your finger to **cover up** the star, ask yourself :-

$$8 + \text{[finger]} = 12$$

$$\Rightarrow * = 4$$

"8 plus **what** equals 12?"

=> the answer of course is "4".

3 further examples :-

$$6 \times * = 18$$

$$\Rightarrow * = 3$$

$$13 - * = 6$$

$$\Rightarrow * = 7$$

$$\frac{*}{5} = 14$$

$$\Rightarrow * = 70$$

3 different examples :-

Which of the 4 symbols, +, -, x or ÷ should replace the box each time?

$$15 \text{ [] } 7 = 8$$

$$\Rightarrow \text{ [] is "-"}$$

$$4 \text{ [] } 7 = 11$$

$$\Rightarrow \text{ [] is "+"}$$

$$3 \text{ [] } 9 = 27$$

$$\Rightarrow \text{ [] is "x"}$$

Exercise 2

1. Copy each of the following and find what * stands for each time :-

a $6 + * = 9$

b $12 - * = 3$

c $* \times 7 = 42$

=> $* = \dots$

=> $* = \dots$

=> $* = \dots$

2. Find the value of * in each of the following :-

a $5 + * = 19$

b $6 + * = 6$

c $17 + * = 29$

d $* + 12 = 20$

e $13 - * = 4$

f $21 - * = 9$

g $7 - * = 0$

h $13 - * = 13$

i $* - 5 = 8$

j $* - 11 = 20$

k $* - 5 = 0$

l $* - 6 = 5$

m $4 \times * = 28$

n $7 \times * = 63$

o $* \times 6 = 30$

p $21 \times * = 0$

q $\frac{*}{4} = 8$

r $\frac{*}{8} = 7$

s $\frac{70}{*} = 10$

t $54 \div * = 6$

u $63 \div * = 9$

3. In each of the following, the symbol stands for +, -, x or ÷.

Decide which symbol is needed each time here :-

a $9 \text{ [] } 7 = 16$

b $14 \text{ [] } 5 = 9$

c $6 \text{ [] } 4 = 24$

d $40 \text{ [] } 8 = 5$

e $7 \text{ [] } 1 = 6$

f $9 \text{ [] } 1 = 9$

g $11 \text{ [] } 1 = 12$

h $22 \text{ [] } 2 = 11$

i $60 \text{ [] } 3 = 57$