

Solve equations with an unknown number on both sides

1 Solve the problems below.

EXAMPLE $5x + 4 = x + 12$

Whatever you do to one side you must do to the other.

STEP 1

Put the x terms on the same side of the equation by subtracting x from both sides.

$$5x - x + 4 = 12$$

STEP 3

Put the number terms on the same side of the equation by subtracting 4 from both sides.

$$4x = 12 - 4 = 8$$

STEP 2

Simplify.

$$4x + 4 = 12$$

STEP 4

To find the value of x , divide both sides by 4.

$$x = 8 \div 4 = 2$$

a $8x + 3 = x + 17$

STEP 1

STEP 2

STEP 3

STEP 4 $x =$

b $12y + 13 = 9y + 28$

STEP 1

STEP 2

STEP 3

STEP 4 $y =$

c $33a + 27 = 12a + 174$

STEP 1

STEP 2

STEP 3

STEP 4 $a =$

d $75 + 14x = 10 + 19x$

STEP 1

STEP 2

STEP 3

STEP 4 $x =$