

Name: ..... Class: .....

## Solve variable expressions

Find the values of the following variables.

a.  $4(z - 6) = 48$

b.  $u + 380 - 107 = 512$

c.  $y \div 12 \times 6 = 7$



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## Solve variable expressions

Find the values of the following variables.

a.  $4(z - 6) = 48$

Let's first of all multiply all through by 4

$$4(z - 6) = 4z - 24$$

$$4z - 24 = 48$$

Secondly, let's add 24 on both sides of the expression

$$4z - 24 + 24 = 48 + 24$$

$$4z = 72$$

Finally, to find z, we divide both sides by 4

$$z = \frac{72}{4} = 18$$

So,  $z = 18$

b.  $u + 380 - 107 = 512$

Let's first of all subtract

$$u + 380 - 107 = 512$$

$$u + 273 = 512$$

Then to solve u,

let's subtract 273 from both sides

$$u + 273 - 273 = 512 - 273$$

$$u = 239$$

So,  $u = 239$

c.  $y \div 12 \times 6 = 7$

Let's first of all multiply 12 by 6

$$y \div 12 \times 6 = 7$$

$$y \div 72 = 7$$

Then to solve y,

Multiply both sides by 72

$$\frac{y}{72} \times 72 = 7 \times 72$$

$$y = 7 \times 72$$

$$y = 504$$

So,  $y = 504$

