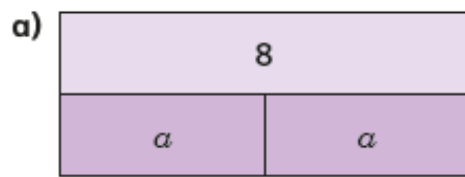
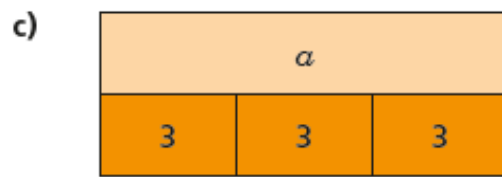


Write algebraic equations to represent the bar models.

Find the value of α in each one.



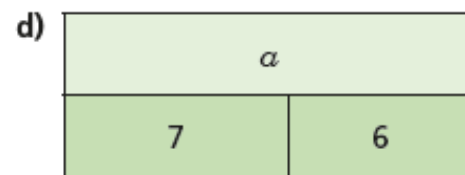
$$\alpha = \square$$



$$\alpha = \square$$



$$\alpha = \square$$



$$\alpha = \square$$

Find the value of y .

$$y + 8 = 14$$

$$3y = 24$$

$$50 - y = 23$$

$$\frac{y}{4} = 28$$

Nijah is solving the equation $x - 8 = 20$

$$x - 8 = 20$$

$$x = 20 - 8$$

$$x = 12$$

What mistake has Nijah made?

Filip thinks of a number.

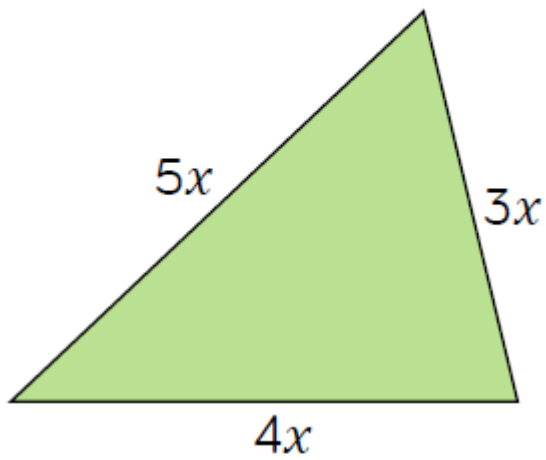
He subtracts 5 from his number.

He ends up with 10

Write an algebraic equation to represent Filip's problem.

Solve the equation to work out his number.

The perimeter of the triangle is 216 cm.



Form an equation to show this information.

Solve the equation to find the value of x .

Work out the lengths of the sides of the triangle.