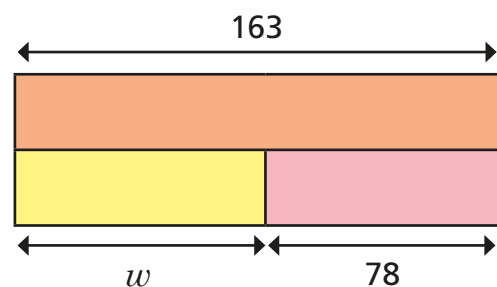


# Solve one-step linear equations involving +/- using inverse operations

- 1 a) Complete the fact family for the bar model.



$$\begin{aligned} w + 78 &= 163 \\ 78 + w &= 163 \\ w &= 163 - 78 \quad \checkmark \\ 78 &= 163 - w \end{aligned}$$

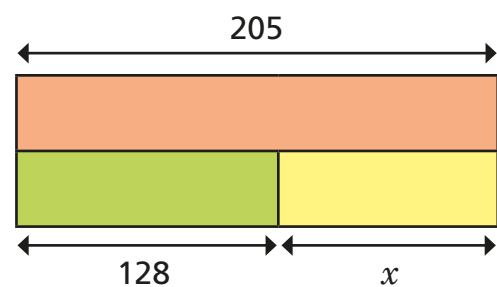
- b) Which fact will help you work out the value of  $w$ ?

Tick your answer.

- c) Work out the value of  $w$ .

$$w = 85$$

- 2 a) Write the fact family for the bar model.

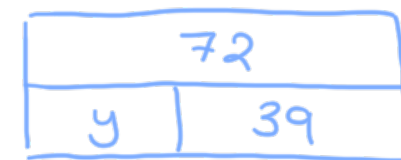


$$\begin{aligned} 128 + x &= 205 \\ x + 128 &= 205 \\ 205 - x &= 128 \\ 205 - 128 &= x \end{aligned}$$

- b) What is the value of  $x$ ?

$$x = 77$$

- 3 a) Draw a bar model to illustrate  $y + 39 = 72$



- b) Write the fact family for your bar model.

$$\begin{aligned} y + 39 &= 72 & 39 + y &= 72 \\ 72 - y &= 39 & 72 - 39 &= y \end{aligned}$$

- c) What is the value of  $y$ ?

$$y = 33$$

- 4 Solve the equations.

- a)  $d + 59 = 91$

$$d = 32$$

- b)  $15.8 + e = 29$

$$e = 13.2$$

- c)  $63.1 = f + 17$

$$f = 46.1$$

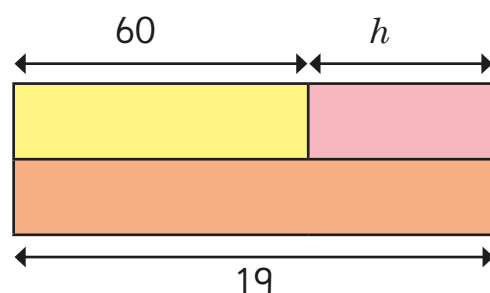
- d)  $368.23 = x + 65.7$

$$x = 302.53$$

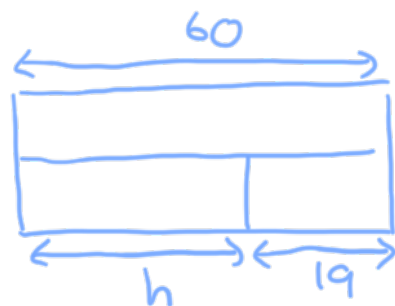
- e)  $3001.72 = 1003.27 + y$

$$y = 1,998.45$$

- 5 Rosie has drawn a bar model to illustrate the equation  $60 - h = 19$



What mistake has Rosie made? Draw the correct bar model.



- 6 a) Draw a bar model to illustrate  $g - 59 = 12$

Write the fact family for the bar model.



$$59 + 12 = g$$

$$12 + 59 = g$$

$$g - 59 = 12$$

$$g - 12 = 59$$

- b) What is the value of  $g$ ?

$$g = 71$$

- 7 Solve the equations.

a)  $70 - b = 18$

$$b = 52$$

b)  $83 = m - 164$

$$m = 247$$

c)  $p - 321 = 407.3$

$$p = 728.3$$

- 8 Write an equation for each of these problems.

Whitney thinks of a number.  
She adds 87 to her number  
and gets an answer of 153

Tommy thinks of a number.  
He subtracts his number  
from 302.1 and gets  
an answer of 149.8

Solve the equations.

$$x + 87 = 153$$

$$302.1 - x = 149.8$$

Whitney's number is  $66$

Tommy's number is  $152.3$