

Rearranging Formulae

ANSWERS

1

Make x the subject of $y = x + 6$.

$$x \longrightarrow \boxed{+6} \longrightarrow y$$

$$x \longleftarrow \boxed{-6} \longleftarrow y$$

$$x = \boxed{y - 6}$$

2

Make x the subject of $y = x - 4$.

$$x \longrightarrow \boxed{-4} \longrightarrow y$$

$$x \longleftarrow \boxed{+4} \longleftarrow y$$

$$x = \boxed{y + 4}$$

3

Make x the subject of $y = 3x$.

$$x \longrightarrow \boxed{\times 3} \longrightarrow y$$

$$x \longleftarrow \boxed{\div 3} \longleftarrow y$$

$$x = \boxed{\frac{y}{3}}$$

4

Make n the subject of $m = 5n$.

$$n \longrightarrow \boxed{\times 5} \longrightarrow m$$

$$n \longleftarrow \boxed{\div 5} \longleftarrow m$$

$$n = \boxed{\frac{m}{5}}$$

5

Make b the subject of $a = b + 8$.

$$b \longrightarrow \boxed{+8} \longrightarrow a$$

$$b \longleftarrow \boxed{-8} \longleftarrow a$$

$$b = \boxed{a - 8}$$

6

Make x the subject of $y = 10x$.

$$x \longrightarrow \boxed{\times 10} \longrightarrow y$$

$$x \longleftarrow \boxed{\div 10} \longleftarrow y$$

$$x = \boxed{\frac{y}{10}}$$

7

Ben is 3 years older than Kim.
So $b = k + 3$. Make k the subject.

$$k \longrightarrow \boxed{+3} \longrightarrow b$$

$$k \longleftarrow \boxed{-3} \longleftarrow b$$

$$k = \boxed{b - 3}$$

8

Write the formula for this machine.
Then make x the subject.

$$x \longrightarrow \boxed{\times 2} \longrightarrow y$$

$$x \longleftarrow \boxed{\div 2} \longleftarrow y$$

$$y = \boxed{2x}$$

$$x = \boxed{\frac{y}{2}}$$

Rearranging Formulae *further practice*

ANSWERS

9



Make a the subject of $b = a - 7$.

$$a \longrightarrow \boxed{- 7} \longrightarrow b$$

$$a \longleftarrow \boxed{+ 7} \longleftarrow b$$

$$a = \boxed{b + 7}$$

10



Make h the subject of $k = 7h$.

$$h \longrightarrow \boxed{\times 7} \longrightarrow k$$

$$h \longleftarrow \boxed{\div 7} \longleftarrow k$$

$$h = \boxed{\frac{k}{7}}$$

11



Make x the subject of $y = \frac{x}{3}$.

$$x \longrightarrow \boxed{\div 3} \longrightarrow y$$

$$x \longleftarrow \boxed{\times 3} \longleftarrow y$$

$$x = \boxed{3y}$$

12



Make m the subject of $m + 9 = n$.

$$m \longrightarrow \boxed{+ 9} \longrightarrow n$$

$$m \longleftarrow \boxed{- 9} \longleftarrow n$$

$$m = \boxed{n - 9}$$

13



The perimeter of a square is $P = 4s$.
Make s the subject.

$$s \longrightarrow \boxed{\times 4} \longrightarrow P$$

$$s \longleftarrow \boxed{\div 4} \longleftarrow P$$

$$s = \underline{\underline{\frac{P}{4}}}$$

14



Tickets cost £6 each. So t tickets cost
 $C = 6t$ pounds. Make t the subject.
Find t when $C = 42$.

$$t \longrightarrow \boxed{\times 6} \longrightarrow C$$

$$t \longleftarrow \boxed{\div 6} \longleftarrow C$$

$$t = \underline{\underline{\frac{C}{6}}}$$

When $C = 42$, $t = \underline{\underline{7}}$

15



A spider has 8 legs. s spiders have
 n legs. Write a formula for n .
Then make s the subject.

$$s \longrightarrow \boxed{\times 8} \longrightarrow n$$

$$s \longleftarrow \boxed{\div 8} \longleftarrow n$$

$$n = \underline{\underline{8s}}$$

$$s = \underline{\underline{\frac{n}{8}}}$$

16



Sam makes x the subject of
 $y = x - 6$. He writes $x = y - 6$.
What is his mistake?

$$x \longrightarrow \boxed{- 6} \longrightarrow y$$

$$x \longleftarrow \boxed{+ 6} \longleftarrow y$$

Sam's mistake is

he did not undo the $- 6$

$$x = \underline{\underline{y + 6}}$$