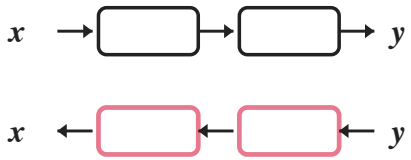
Rearranging Formulae

1

Make x the subject of $y = 5x + 4$.

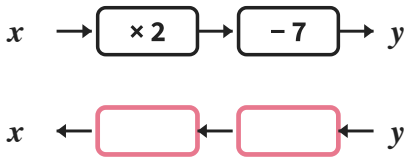


backwards: undo each step in reverse order

Answer _____

2

Make x the subject of $y = 2x - 7$.

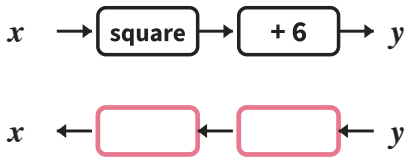


backwards: undo each step in reverse order

Answer _____

3

Make x the subject of $y = x^2 + 6$.

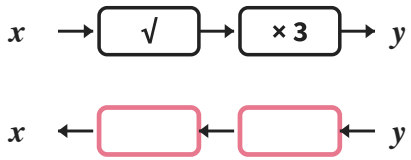


backwards: undo each step in reverse order

Answer _____

4

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



backwards: undo each step in reverse order

Answer _____

5

Make q the subject of $p = 4q + 9$.

Answer _____

6

Zara makes x the subject of $y = 3x - 5$.

She writes $x = \frac{y}{3} + 5$. What has she done wrong? Write the right answer.

Answer _____

7

Make x the subject of $y = 5x^2 + 1$.

Answer _____

8

It costs C pounds to hire a hall for h hours, where $C = 30h + 50$.

Make h the subject. How many hours can you hire the hall for with £200?

Formula _____

Hours _____

Rearranging Formulae *further practice*

9

Make x the subject of $y = 2\sqrt{x} + 5$.

Answer _____

10

Make x the subject of $y = \frac{x+4}{3}$.

Answer _____

11

A square has sides of s cm and an area of A cm², where $A = s^2$. Make s the subject. Then find the perimeter of a square with an area of 49 cm².

Formula _____

Perimeter _____

12

A taxi fare is T pounds for a journey of m miles, where $T = 2.5m + 3$. Make m the subject. How long was a journey that cost £23?

Formula _____

Journey _____

13

Omar makes x the subject of $y = x^2 - 9$. He writes $x = \sqrt{y} + 9$. Test his answer with $x = 5$, then write the right answer.

_____

Answer _____

14

A pendulum L metres long takes about T seconds to swing there and back, where $T = 2\sqrt{L}$. Make L the subject. How long is a pendulum that takes 3 seconds?

Formula _____

Length _____

15

A ball is dropped from h metres. It hits the ground at v metres per second, where $v^2 = 20h$. Make h the subject. Then make v the subject.

_____

_____

16

Leo makes x the subject of $y = 3x + 6$. He says, "x was multiplied by 3 first, so I divide by 3 first." Is he right? Explain.

_____

_____