



Timester Challenge

Parallel Lines



Circle equation of the line parallel to
 $y = 3x - 2$

$y = 5x - 2$ $2y = 6x - 4$ $y - 3x = 8$

$y = -\frac{1}{3}x + 4$ $2y = 3x + 8$

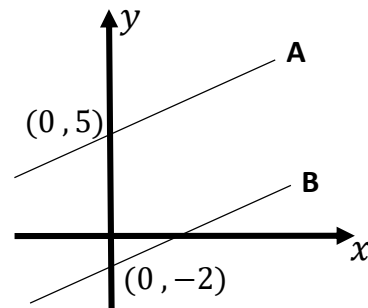
Bronze ★

Write down the equation of the line parallel to $y = 7x + 4$, which passes through the point $(0, -2)$.

Bronze ★

Write down the equation of the line parallel to $2x + 4y = 12$, which passes through the point $(0, -5)$.

Bronze ★



Lines A and B are parallel.
The line A passes through the points $(0, 5)$ and $(2, 9)$.

- a) What is the equation of line A?
- b) Line B is parallel to line A and passes through the point $(0, -2)$. What is the equation of this line?

Silver ★

A straight line L passes through the points $(0, 2)$ and $(3, 11)$.

A straight line M passes through the point $(0, -1)$ and is parallel to the line L.
Find the equation of the line M.

Gold ★

A straight line L passes through the points $(1, 5)$ and $(5, -3)$.

A straight line M passes through the point $(3, 2)$ and is parallel to the line L.
Find the equation of the line M.

Gold ★



Timester Challenge

Parallel Lines



Answers

Circle equation of the line parallel to

$$y = 3x - 2$$

$$y = 5x - 2$$

$$2y = 6x - 4$$

$$y - 3x = 8$$

$$y = -\frac{1}{3}x + 4$$

$$2y = 3x + 8$$

Bronze ★

Write down the equation of the line parallel to $y = 7x + 4$, which passes through the point $(0, -2)$.

$$y = 7x - 2$$

Bronze ★

Write down the equation of the line parallel to $2x + 4y = 12$, which passes through the point $(0, -5)$.

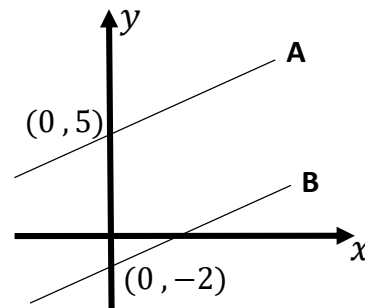
Parallel Line

$$4y = 12 - 2x \quad y = -5 - \frac{1}{2}x \text{ or}$$

$$y = 3 - \frac{1}{2}x$$

$$y = -\frac{1}{2}x - 5$$

Bronze ★



Lines A and B are parallel.

The line A passes through the points $(0, 5)$ and $(2, 9)$.

a) What is the equation of line A?

$$\text{Gradient} = \frac{4}{2} = 2, \quad y = 2x + 5$$

b) Line B is parallel to line A and passes through the point $(0, -2)$. What is the equation of this line?

$$y = 2x - 2$$

Silver ★

A straight line L passes through the points $(0, 2)$ and $(3, 11)$.

A straight line M passes through the point $(0, -1)$ and is parallel to the line L.

Find the equation of the line M.

$$\text{Gradient of L} = \frac{9}{3} = 3$$

$$\text{Equation of L } y = 3x + 2$$

$$\text{Gradient of M} = 3$$

$$\text{Equation of M } y = 3x - 1$$

Gold ★

A straight line L passes through the points $(1, 5)$ and $(5, -3)$.

A straight line M passes through the point $(3, 2)$ and is parallel to the line L.

Find the equation of the line M.

$$\text{Gradient of L} = \frac{-8}{4} = -2 \quad \text{Equation of M } y = -2x + 8$$

$$\text{Equation of L } y = -2x + c$$

Sub in Coordinate of M to find C

$$(2) = -2(3) + c$$

$$2 = -6 + c$$

$$c = 2 + 6 = 8$$

Gold ★