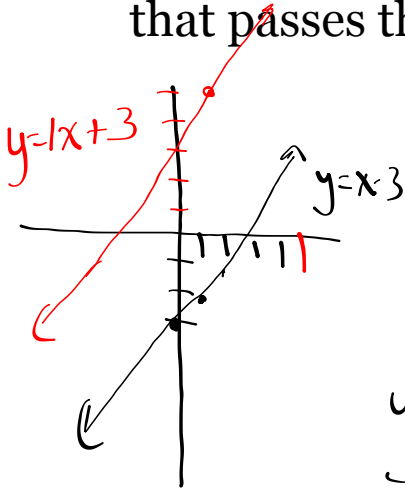


# SMART START

Write an equation in slope intercept form for the line that passes through the given point and is parallel to the graph of each equation



$(2, 5), y = x - 3$

given line		line we're looking for
$y = x - 3$		$(2, 5)$
$m = 1$		$y = mx + b$
		$5 = 1(2) + b$
		$3 = b$
		$b = ?$

## Six Problem Check

2)

4)

5)

7)

8)

9)

$$2) \{1, 3\}$$

$$4) \{3, 2\}$$

$$5) \{-1\} \quad \{-1, -1\} \text{ good}$$

$$7) \left\{-\frac{2}{3}, -1\right\}$$

$$\left\{\frac{2}{3}, 1\right\}^{-\frac{1}{2}}$$

$$8) \left\{\frac{2}{3}, -3\right\}$$

$$\left\{-\frac{2}{3}, -3\right\}^{-\frac{1}{2}}$$

$$9) \left\{\frac{3}{2}, -2\right\}$$

$$1) \{1, 2\}$$

$$2) \{1, 3\}$$

$$3) \{2, 3\}$$

$$4) \{3, 2\}$$

$$5) \{-1\}$$

$$6) \left\{-\frac{3}{2}\right\}$$

$$7) \left\{-\frac{2}{3}, -1\right\}$$

$$8) \left\{\frac{2}{3}, -3\right\}$$

$$9) \left\{\frac{3}{2}, -2\right\}$$

$$10) \left\{-\frac{1}{2}, 1\right\}$$

③  $k^2 - 5k + 6 = 0$

$$(k-2)(k-3) = 0$$

$\begin{array}{c} \text{6} \\ 1 \mid 6 = 7 \\ -1 \mid -6 = -7 \\ -2 \mid -3 \end{array}$

$k = 2, 3$

$$(x-4)(x+4)$$
$$\cancel{x^2+4x-4x-16}$$
$$x^2 - 16$$

What happens to your 'b' term?  
What do you notice about your first and third terms?

difference of squares

$$7a^2b^3 + 21ab^4 - \text{GCF}$$

$$x^2 + 7x + 10 \quad - a=1 \text{ box method in reverse}$$
$$(x+5)(x+2) \quad \frac{10}{5 \times 2}$$

$$2x^2 + 7x + 6 \quad \frac{12}{3 \times 4} \quad - a=2 \text{ bust the } b \text{ or}$$
$$2x^2 + 3x + 4x + 6 \quad \text{Kun}$$

Factors  $a \cdot c$  must add to  $b$

$$\text{Ex 1 } \sqrt{9x^2} - \sqrt{64}$$
$$(3x + 8)(3x - 8)$$

2 terms: difference of squares  
Am I subtracting 2 perfect squares?

$$\text{Ex 2 } \overset{125}{5}d^2 - 80y^2$$
$$5(\sqrt{25d^2} - \sqrt{16y^2})$$

$$5(5d + 4y)(5d - 4y)$$

$$\text{Ex 3 } \sqrt{16y^2} - \sqrt{81}$$

$$(4y + 9)(4y - 9)$$

Ex 4

$$\frac{x^3 + 3x^2}{x^2} \cdot \frac{9x - 27}{9x - 9}$$
$$x^2(x+3) - 9(x+3)$$
$$(\sqrt{x^2} - \sqrt{9})(x+3)$$
$$(x-3)(x+3) (x+3)$$

Ex 5

$$81x^2 = 9$$

May the God of hope fill you with all joy and peace



Homework

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