Lesson 2.5.1: Graphing Linear Functions Total points = 48

1. Let
$$x = 0$$
: \checkmark Let $x = 1$: \checkmark

1. Let
$$x = 0$$
.

$$f(x) = 2x + 1$$
 $f(x) = 2x + 1$ $f(0) = 2(0) + 1$ $f(1) = 2(1) + 1$

$$f(0) = 0 + 1 \checkmark \qquad f(1)$$

$$f(0) = 0 + 1 \checkmark$$
 $f(1) = 2 + 1 \checkmark$
 $f(0) = 1 \checkmark$ $f(1) = 3 \checkmark$

$$f(0) = 1 \checkmark \qquad f(1) = 3 \checkmark$$

$$\therefore P_1 = (0,1) \checkmark \qquad \therefore P_2 = (1,3) \checkmark$$

2. Let
$$x = -2$$
:

Let
$$x = 2$$
:

$$f(x) = -\frac{1}{2}x + 3\sqrt{ }$$

$$f(x) = -\frac{1}{2}x + 3\checkmark$$

2. Let
$$x = -2$$
: \checkmark

$$f(x) = -\frac{1}{2}x + 3\checkmark$$

$$f(x) = -\frac{1}{2}(-2) + 3\checkmark$$

$$f(-2) = -\frac{1}{2}(-2) + 3\checkmark$$

$$f(-2) = 1 + 3\checkmark$$

$$f(-2) = 4\checkmark$$

$$f(-2) = 2\checkmark$$

$$\therefore P_1 = (-2, 4)\checkmark$$
Let $x = 2$: \checkmark

$$f(x) = -\frac{1}{2}x + 3\checkmark$$

$$f(2) = -\frac{1}{2}(2) + 3\checkmark$$

$$f(2) = -1 + 3\checkmark$$

$$f(2) = 2\checkmark$$

$$\therefore P_2 = (2, 2)\checkmark$$

$$f(a) = \frac{1}{1}(a) + a$$

$$f(-2) = 1 + 2\sqrt{ }$$

$$f(2) = -1 + 3\sqrt{ }$$

$$f(-2) = 4\sqrt{}$$

$$\therefore P_1 = (-2,4)\checkmark$$

3. Let
$$f(x) = 0 : \checkmark$$
 Let $x = 0 : \checkmark$

Let
$$x = 0$$
:

$$f(x) = \frac{4}{3}x - 4\checkmark \qquad f(x) = \frac{4}{3}x - 4\checkmark$$

$$0 = \frac{4}{3}x - 4\checkmark \qquad f(0) = \frac{4}{3}(0) - 4\checkmark$$

$$\frac{4}{3}x - 4 = 0\checkmark \qquad f(0) = 0 - 4\checkmark$$

$$f(o) = o - 4\checkmark$$

$$\frac{4}{3}x - 4 + 4 = 0 + 4$$

$$\therefore b = -4 \checkmark$$

$$\frac{3}{4}(\frac{4}{3})x = \frac{3}{4}(4)$$

Lesson 2.5.1: Graphing Linear Functions Total points = 48

1. Let
$$x = 0$$
: \checkmark Let $x = 1$: \checkmark

$$f(x) = 2x + 1 \checkmark \qquad f(x) = 2x + 1 \checkmark$$

$$f(0) = 2(0) + 1 \checkmark f(1) = 2(1) + 1 \checkmark$$

$$f(0) = 0 + 1 \checkmark \qquad f(1) = 2 + 1 \checkmark$$

$$f(0) = 1 \checkmark \qquad \qquad f(1) = 3 \checkmark$$

$$\therefore P_1 = (0,1)\checkmark \qquad \therefore P_2 = (1,3)\checkmark$$

2. Let
$$x = -2$$
: \checkmark Let $x = 2$: \checkmark

$$f(y) = -\frac{1}{2}y + 2y$$

2. Let
$$x = -2$$
: \checkmark Let $x = 2$: \checkmark

$$f(x) = -\frac{1}{2}x + 3\checkmark \qquad f(x) = -\frac{1}{2}x + 3\checkmark$$

$$f(-2) = -\frac{1}{2}(-2) + 3\checkmark \qquad f(2) = -\frac{1}{2}(2) + 3\checkmark$$

$$f(-2) = 1 + 3\checkmark \qquad f(2) = -1 + 3\checkmark$$

$$f(-2) = 4\checkmark \qquad f(2) = 2\checkmark$$

$$\therefore P_1 = (-2, 4)\checkmark \qquad \therefore P_2 = (2, 2)\checkmark$$

$$f(-2) \equiv 1 + 3\sqrt{}$$
 $f(2) \equiv$

$$(-2) = 1 + 3\sqrt{}$$

$$f(2) = -1 + 3\sqrt{}$$

$$f(2) = 2\sqrt{}$$

3. Let
$$f(x) = 0 : \checkmark$$
 Let $x = 0 : \checkmark$

$$f(x) = \frac{4}{3}x - 4\sqrt{3}$$

$$f(x) = \frac{4}{9}x - 4\sqrt{}$$

$$0 = \frac{4}{3}x - 4v$$

3. Let
$$f(x) = 0$$
: V

Let $x = 0$: V

 $f(x) = \frac{4}{3}x - 4\sqrt{}$
 $f(x) = \frac{4}{3}x - 4\sqrt{}$
 $f(x) = \frac{4}{3}(0) - 4\sqrt{}$
 $\frac{4}{3}x - 4 = 0$
 $f(x) = \frac{4}{3}(0) - 4\sqrt{}$

Lesson 2.5.1: Graphing Linear Functions Total points = 48

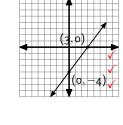
$$I(0) = -4$$

$$-x = 4$$

$$\frac{3}{4}(\frac{4}{3})x = \frac{3}{4}(4)$$

$$x = 3$$

$$\therefore a = 3$$



Lesson 2.5.1: Graphing Linear Functions Total points = 48

1. Let
$$x = 0$$
: \checkmark Let $x = 1$: \checkmark

1. Let
$$x = 0$$
: \checkmark Let $x = 1$: \checkmark $f(x) = 2x + 1\checkmark$ $f(x) = 2x + 1\checkmark$

$$f(0) = 2(0) + 1 \checkmark f(1) = 2(1) + 1 \checkmark$$

$$f(0) = 0 + 1$$

$$f(1) = 2 + 1$$

$$f(0) = 0 + 1 \checkmark \qquad f(1) = 2 + 1 \checkmark$$

$$f(0) = 1 \checkmark \qquad f(1) = 3 \checkmark$$

$$\therefore P_1 = (0, 1) \checkmark \qquad \therefore P_2 = (1, 3) \checkmark$$

$$P_2 = (1.$$

2. Let
$$x = -2$$
: \checkmark Let $x = 2$: \checkmark

$$f(x) = -\frac{1}{2}x + 3\checkmark \qquad f(x) = -\frac{1}{2}x + 3\checkmark$$

$$f(-2) = -\frac{1}{2}(-2) + 3\checkmark \qquad f(2) = -\frac{1}{2}(2) + 3\checkmark$$

$$f(-2) = 1 + 3\checkmark \qquad f(2) = -1 + 3\checkmark$$

$$f(-2) = 4\checkmark \qquad f(2) = 2\checkmark$$

$$\therefore P_1 = (-2, 4)\checkmark \qquad \therefore P_2 = (2, 2)\checkmark$$

$$f(x) = -\frac{1}{2}x + 3$$

$$f(x) = -\frac{1}{2}x + 3\checkmark$$

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

$$f(-2) = 4\checkmark$$

$$f(z) = 2\sqrt{$$

$$\therefore P_1 = (-2,4) \checkmark$$

$$f(2) = 2\checkmark$$

3. Let
$$f(x) = 0$$
: \checkmark Let $x = 0$: \checkmark

$$f(x) = \frac{4}{3}x - 4\checkmark$$

$$f(x) = \frac{4}{3}x - 4\checkmark$$

$$f(x) = \frac{4}{5}x - 4x$$

$$0 = \frac{4}{5}x - 4\sqrt{3}$$

$$o = \frac{4}{3}x - 4\sqrt{}$$
 $f(o) = \frac{4}{3}(o) - 4\sqrt{}$

$$\frac{1}{2}x - 4 = 0$$

$$f(o) = o - 4$$

$$\frac{4}{2}x - 4 + 4$$

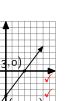
$$f(0) = -4$$

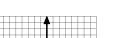
$$\frac{\pi}{3}x = 4\sqrt{}$$

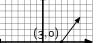
$$\therefore b = -4\checkmark$$

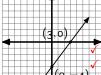
$$\frac{3}{4}(\frac{4}{3})x = \frac{3}{4}(4)$$

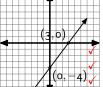
$$x = 3\sqrt{}$$











$$f(x) = \frac{4}{3}x - 4\sqrt{\qquad} \qquad f(x) = \frac{4}{3}$$

1. Let x = 0: \checkmark Let x = 1: \checkmark $f(x) = 2x + 1 \checkmark \qquad f(x) = 2x + 1 \checkmark$ $f(0) = 2(0) + 1 \checkmark \qquad f(1) = 2(1) + 1 \checkmark$

 $f(0) = 0 + 1 \checkmark \qquad f(1) = 2 + 1 \checkmark$ $f(0) = 1 \checkmark \qquad f(1) = 3 \checkmark$ $\therefore P_1 = (0, 1) \checkmark \qquad \therefore P_2 = (1, 3) \checkmark$

$$0 = \frac{4}{3}x - 4\checkmark$$

$$f(0) = \frac{4}{3}(0) = 4$$

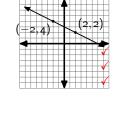
$$3$$

$$\frac{4}{x} - 4 = 0$$

$$f(0) = \frac{1}{3}(0) - 4\sqrt{3}$$

$$\frac{4}{3}x = 4\checkmark$$

$$\frac{3}{4}(\frac{4}{3})x = \frac{3}{4}(4)$$



3. Let
$$f(x) = 0 : \checkmark$$
 Let $x = 0 : \checkmark$

 $f(x) = -\frac{1}{2}x + 3\checkmark \qquad f(x) = -\frac{1}{2}x + 3\checkmark$ $f(-2) = -\frac{1}{2}(-2) + 3\checkmark \qquad f(2) = -\frac{1}{2}(2) + 3\checkmark$

 $f(-2) = 1 + 3\checkmark$ $f(2) = -1 + 3\checkmark$ $f(2) = 2\checkmark$ $f(2) = 2\checkmark$ $f(2) = 2\checkmark$ $f(2) = 2\checkmark$ $f(2) = 2\checkmark$

$$f(x) = \frac{4}{3}x - 4\checkmark$$

2. Let x = -2:

$$f(x) = \frac{1}{3}x - 4\sqrt{3}$$

Let x = 2:

$$x-4=0\checkmark$$

$$f(0) = 0 - i$$

$$\frac{1}{3}x - 4 + 4 = 0 + 4\sqrt{}$$

$$\therefore b = -4$$

$$c = \frac{3}{4}(4)$$

