Coordinate Plane

$-, +$

$+, +$

Quadrant II

Quadrant I

Quadrant III

0,0 Origin $+$ X

Quadrant 4

$+, -$

$-, -$

$(3, 4)$

$(-7, 10)$

$(-8, -11)$

$(12, -7)$

Age	IQ
131	150
172	141
121	170

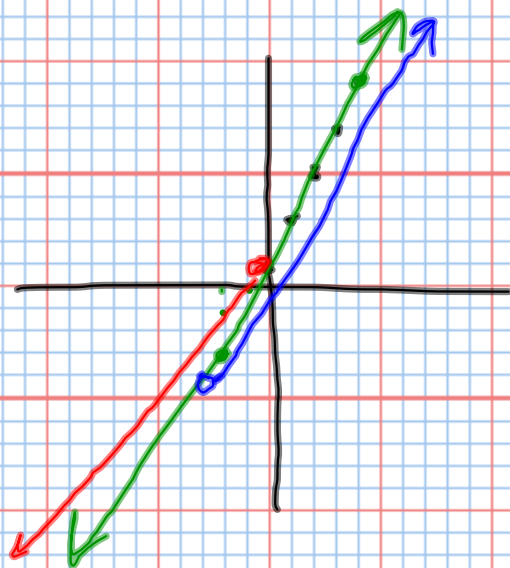| Age	IQ
14	13
16	15
15	20
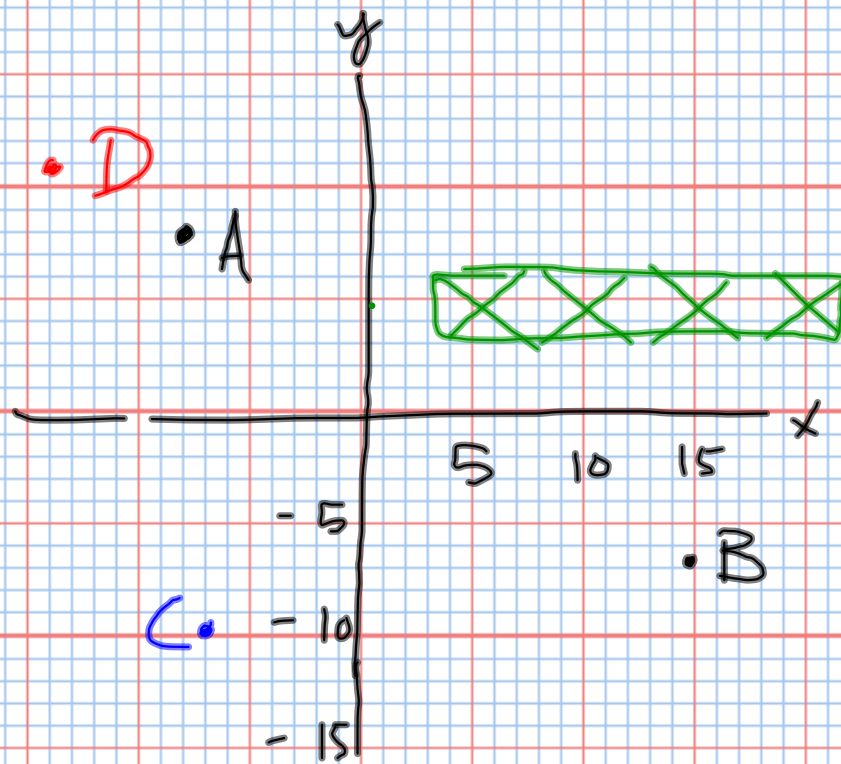
Angie

$A = (-8, 8)$

$B = (15, -7)$

$C = (-7, -10)$

$D = (-14, 11)$

$$y = mx + b$$

$$y = 2x + 1$$

$$ax + by = c$$

$$-2x + y = 1$$

Linear equations —
these equations make
a line.

x	y
4	9
-2	-3

→ domain: all
numbers greater
than -3
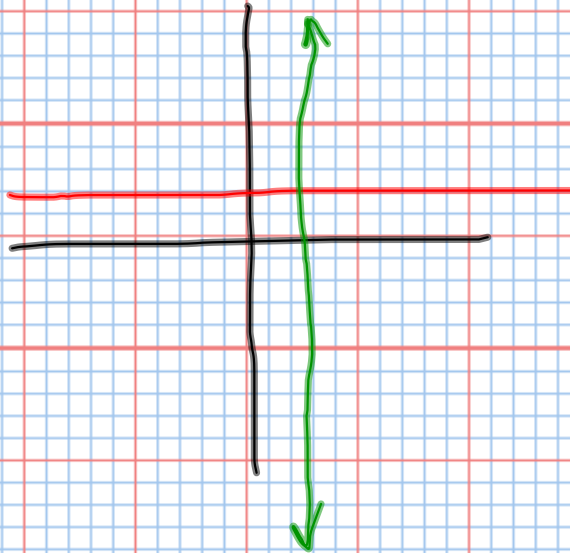
$$0x + 4y = 8$$
$$4y = 8$$
$$y = 2 : \text{horizontal line}$$

$$3x + 0y = 9$$
$$3x = 9$$
$$x = 3 : \text{vertical line}$$

$x = 3$ → $y = 2$, $y = 4$, $y = 6$, $y = ?$

NOT A FUNCTION
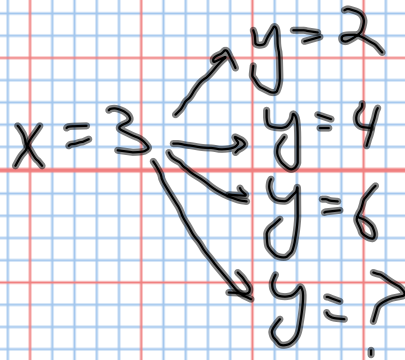
$$4x + 3y = 7 - 4x$$
$$-4x$$

$$\frac{3y}{3} = \frac{7 - 4x}{3}$$

$$y = \frac{1}{3}(7 - 4x)$$

Homework:

p. 209   4-12 (even), 24, 28, 36

p. 219   4-16 (every 4th), 26, 36, 38