

Exercise 1 B

2 b. $y+2 = -3(x-1)$

$$y = -3x + 1$$

f. $y = 8$

g. $y-4 = -\frac{1}{2}(x-3)$ x2

$$2y-8 = -x+3$$

$$x+2y-11 = 0$$

n. $y-2 = -x$

$$x+y-2=0 \text{ or}$$

$$y = -x+2$$

r. $y-4 = mx$

$$y = mx+4$$

4. b. $3x-4y = 8$

$$m = \frac{3}{4}$$

d. $y = 5$

$$m = 0$$

f. $5x = 7$

$$m = \text{undefine}$$

h. $y = 3x+12$

$$m = 3$$

j. $3(y-4) = 7x$

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

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

$$m = \frac{7}{3}$$

l. $px+qy = pq$

$$qy = -px + pq$$

$$y = -\frac{p}{q}x + \frac{pq}{q}$$

$$m = -\frac{p}{q}$$

3 d. $m = \frac{5}{8} \Rightarrow x = 3$

h. $m = -\frac{1}{3}$

$y-0 = -\frac{1}{3}(x-2)$ x3

$$3y = -x+2$$

$$x+3y-2 = 0$$

l. $m = -1$

$$y = -(x+1)$$

$$y = -x-1$$

p. $m = \frac{q}{p}$

$$y = \frac{q}{p}x$$

$$py = qx$$

$$qx - py = 0$$

t. $m = -\frac{q}{p}$

$$y = -\frac{q}{p}(x-p)$$

$$py = -qx + qp$$

$$qx + py - qp = 0$$

6. $(4,-3) \parallel y+2x = 7$

$$m = -2$$

$$y+3 = -2(x-4)$$

$$y = -2x+8-3$$

$$y = -2x+5$$

8. $(3,9) \parallel (-3,2) \& (2,-3)$

$$m = -\frac{5}{5} = -1$$

$$y-9 = -(x-3)$$

$$y = -x+3+9$$

$$y = -x+12$$

10. $(d,0) \parallel y = mx+c$

$$y = m(x-d)$$

$$y = mx - md$$

11. b. $3x+1 = 4x-1$

$$2 = x$$

$$y = 3(2)+1 = 7 \quad \left. \vphantom{y = 3(2)+1 = 7} \right\} (2,7)$$

f. $2x+7y = 47$ (x5) $10x+35y = 235$

$$5x+4y = 50$$
 (x2) $10x+8y = 100$

$$27y = 135$$

$$y = 5$$

$$2x+7 \cdot (5) = 47$$

$$2x+35 = 47$$

$$x = 6$$

$$(6,5)$$

j. $ax+by = c, y = 2ax$

$$ax+b(2ax) = c$$

$$x(a+2ab) = c$$

$$x = \frac{c}{a+2ab} \quad y = 2a\left(\frac{c}{a+2ab}\right) = \frac{2c}{1+2b}$$

$$\left(\frac{c}{a+2ab}, \frac{2c}{1+2b}\right)$$