

Final review

$$l_1: y = \frac{7}{5}x - 5 \quad m_1 = \frac{7}{5}$$

$$l_2: y = -\frac{5}{7}x + 2 \quad m_2 = -\frac{5}{7}$$

$$l_3: y = \frac{5}{7}x + 1 \quad m_3 = \frac{5}{7}$$

$$l_1 \perp l_2$$

$$7a) l_1: x - 3y = 1$$

$$l_2: 3x + y = 4$$

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

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

$$m_1 = \frac{1}{3}$$

$$y = 4 - 3x$$

$$y = -3x + 4$$

$$m_2 = -3$$

$$l_1 \perp l_2$$

$$7b) l_1: x - 2y = 8$$

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

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

$$m_1 = \frac{1}{2}$$

$$l_2: 2x + 4y = 8$$

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

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

$$m_2 = -\frac{1}{2}$$

neither

$$7c) \quad l_1: 3x + 2y = 6$$

$$2y = 6 - 3x$$

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

$$m_1 = -\frac{3}{2}$$

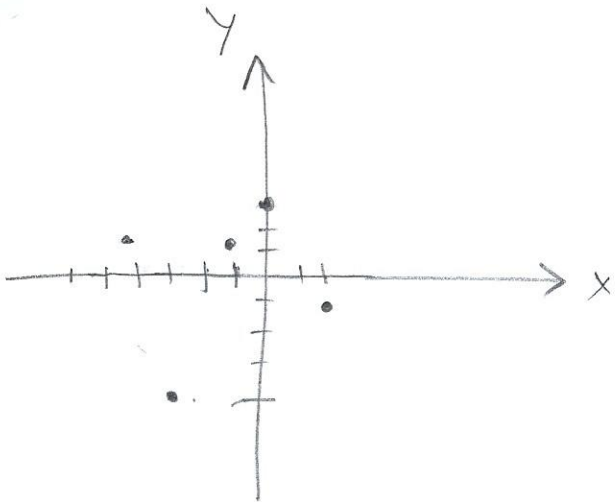
$$l_2: 6x + 4y = 8$$

$$4y = 8 - 6x$$

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

$$m_2 = -\frac{3}{2}$$

$l_1 \parallel l_2$



$$\{(-4, -1), (-3, -4), (-1, 1), (0, 3), (2, -1)\}$$

$$\text{Domain} = \{-4, -3, -1, 0, 2\}$$

$$\text{Range} = \{-1, -4, 1, 3\}$$

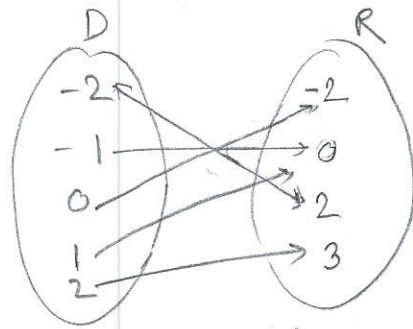
Functions:

Relations:

Domain is a set that contains all of the x-values of the relation.

8a) $D: \{-2, -1, 0, 1, 2\}$

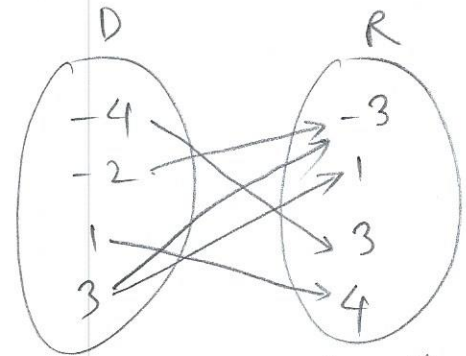
$R: \{-2, 0, 2, 3\}$



function

9a) $D: \{-4, -2, 1, 3\}$

$R: \{-3, 1, 3, 4\}$

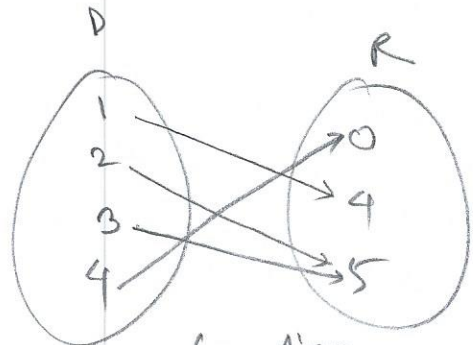


not a function

9b) $R: \{-3, 1, 3, 4\}$

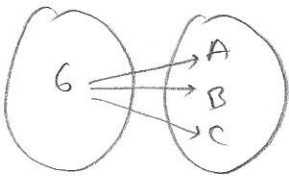
10a) $D: \{1, 2, 3, 4\}$

$R: \{0, 4, 5\}$



function

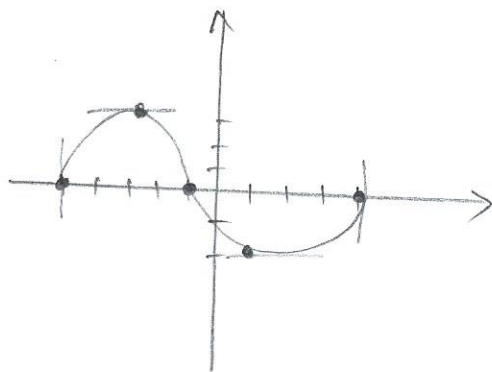
BOOK



$\{(G, A), (G, B), (G, C)\}$

not a function

17)



$$\{(-5, 0), (-3, 3), (-1, 0), (1, -2), (4, 0)\}$$

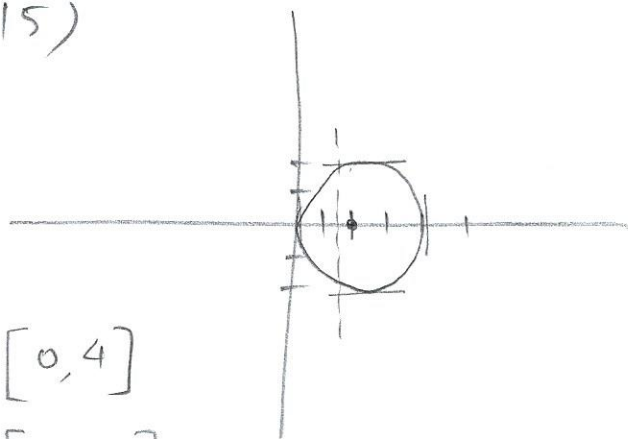
$$D: \{-5, -3, -1, 1, 4\}$$

$$R: \{0, 3, -2\}$$

$$D: [-5, 4]$$

$$R: [-2, 3]$$

15)



$$D: [0, 4]$$

$$R: [-2, 2]$$

Not a function