Identifying Gradients

Examples

1) $y = 4x + 3$ gradient $= 4$

2) $3x + 2y = 6$

$2y = -3x + 6$

$y = -\frac{3}{2}x + \frac{6}{2}$ gradient $= -\frac{3}{2}$

3) $5x + 2y - 3 = 0$

$2y = -5x + 3$

$y = -\frac{5}{2}x + \frac{3}{2}$ gradient $= -\frac{5}{2}$

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

$x + 2 = 3y$

$\frac{1}{3}x + \frac{2}{3} = y$ gradient $= \frac{1}{3}$

Exercise Identify Gradients

1) $y = -\frac{2}{3}x - 4$ gradient $= -\frac{2}{3}$

2) $2x + 5y = 10$

$5y = -2x + 10$

$y = -\frac{2}{5}x + \frac{10}{5}$ gradient $= -\frac{2}{5}$

3) $-4x + 3y + 1 = 0$

$3y = 4x - 1$

$y = \frac{4}{3}x - \frac{1}{3}$ gradient $= \frac{4}{3}$

4) $y = \frac{1}{4}x + 3$ gradient $= \frac{1}{4}$

5) $3x - 2y = 4$

$3x - 4 = 2y$

$\frac{3}{2}x - \frac{4}{2} = y$ gradient $= \frac{3}{2}$

6) $6x - 3y + 5 = 0$

$6x + 5 = 3y$

$\frac{6}{3}x + \frac{5}{3} = y$ gradient $= 2$

Questions

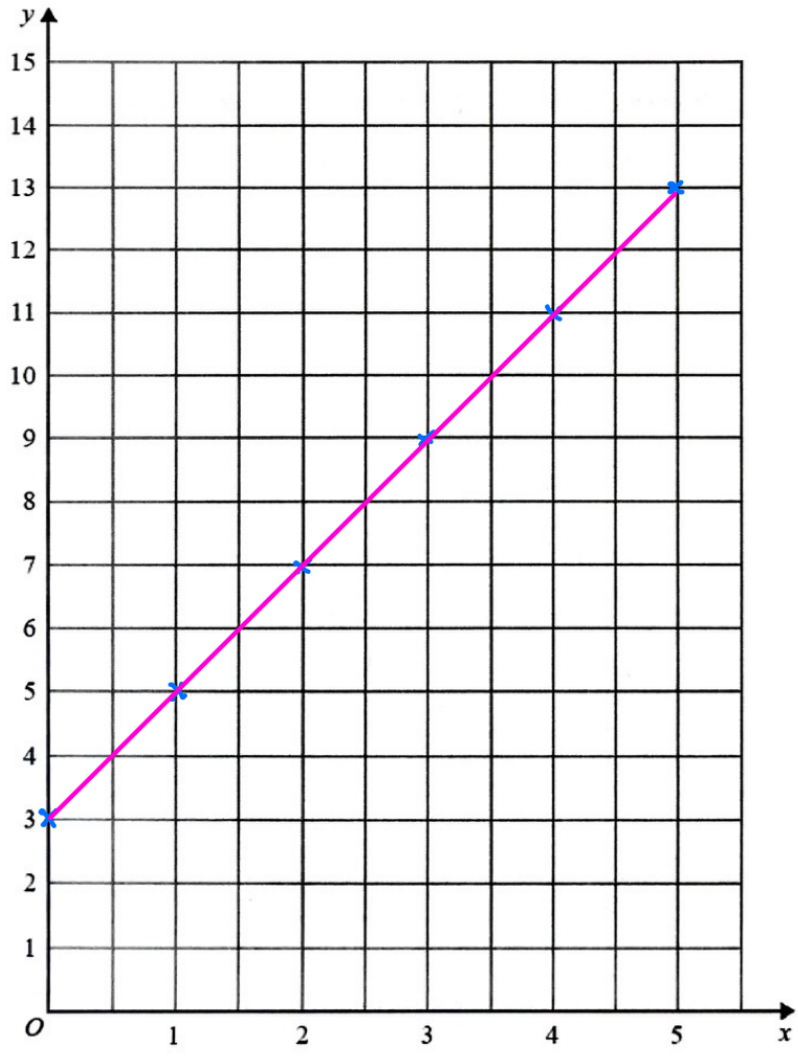
Q1.

(a) Complete the table of values for $y = 2x + 3$ for values of x from 0 to 5

x	0	1	2	3	4	5
y	3	5	7	9	11	13

(2)

(b) On the grid, draw the graph of $y = 2x + 3$ for values of x from 0 to 5



(2)

$y = -2x + 8$

(Total for question = 4 marks)

$x = -1 \quad y = -2(-1) + 8 = 2 + 8 = 10$

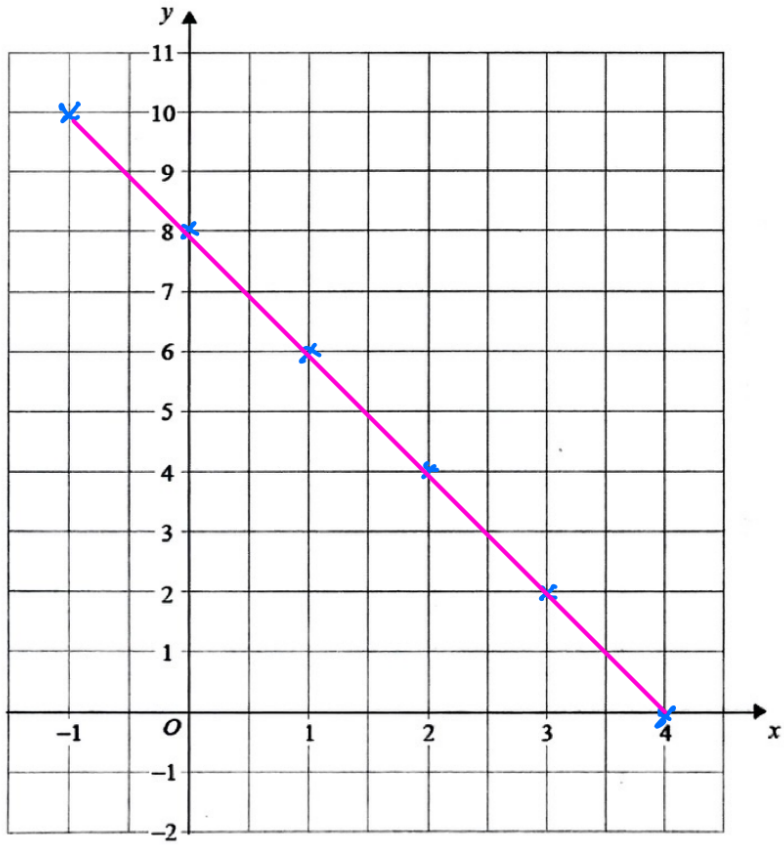
Q2.

(a) Complete the table of values for $y = 8 - 2x$

x	–1	0	1	2	3	4
y	10	8	6	4	2	0

(2)

(b) On the grid, draw the graph of $y = 8 - 2x$ for values of x from –1 to 4



(2)