1 Write **linear** or **not linear** for each function.

(a) $y = 4x + 1$ (1)

(b) $y = x^2 - 3$ (1)

(c) $y = 9 - 2x$ (1)

(d) $y = \dfrac{6}{x}$ (1)

(e) $y = 8$ (1)

(f) $y = x \times x$ (1)

(6 marks)

2 Write down the value of m and the value of c for each linear function.

(a) $y = 3x + 5$ (1)

(b) $y = 7x - 2$ (1)

(c) $y = 6x$ (1)

(d) $y = x + 9$ (1)

(4 marks)

3 Write down the value of m and the value of c.

(a) $y = 10 - 4x$ (1)

(b) $y = 2 - x$ (1)

(c) $y = 12$ (1)

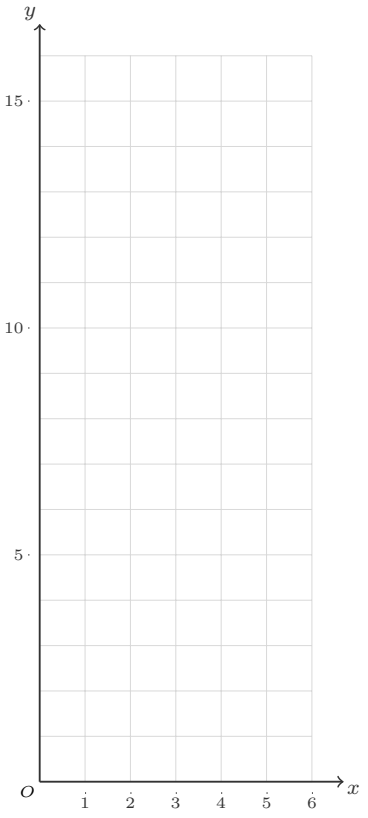
(d) $y = -5x + 3$ (1)

(4 marks)

4 Complete the table for $y = 3x + 2$ and plot the points.

(a) $x = 0, 1, 2, 3, 4$: write the five values of y (2)

(b) Plot the five points on the grid. **Do not join them up.** (5)



(7 marks)

5 For each situation, write down m and c and then the function.

(a) A taxi charges 600 shillings a kilometre plus $2{,}500$ to start (2)

(b) A tank holds 80 litres and loses 5 litres an hour (2)

(4 marks)