1 For each function, find x when y is given.

(a) $y = 5x + 2;\ y = 37$ (1)

(b) $y = 3x - 4;\ y = 26$ (1)

(c) $y = 7x + 1;\ y = 50$ (1)

(d) $y = 2x - 9;\ y = 11$ (1)

(4 marks)

2 For each function, find x when y is given.

(a) $y = \dfrac{x}{2} + 6;\ y = 10$ (1)

(b) $y = \dfrac{x}{5} - 1;\ y = 3$ (1)

(c) $y = 4(x + 3);\ y = 32$ (1)

(3 marks)

3 A taxi charges $y = 600x + 2500$ shillings for a journey of x kilometres.

(a) Find the fare for 8 km (1)

(b) A fare was $9{,}100$ shillings. How far was the journey? (2)

(c) Write down the two steps you used in (b), in order (2)

(5 marks)

4 A machine is described by $y = 8 - x$.

(a) What comes out when 3 goes in? (1)

(b) What comes out when 5 goes in? (1)

(c) What is the inverse of this machine? (2)

(4 marks)

5 Two pupils find the input for $y = 4x + 6$ when $y = 30$. Otim undoes the machine. Adong solves an equation.

(a) Write down the two steps Otim used (2)

(b) Write down the two lines Adong wrote (2)

(c) Are the two methods doing the same thing? Explain. (2)

(6 marks)