1 Expand and simplify.

(a) $4(2x + 3) + 3(x + 1)$ (1)

(b) $5(a + 4) + 2(3a - 5)$ (1)

(c) $3(4m - 1) + 2(m + 6)$ (1)

(3 marks)

2 Factorise fully.

(a) $24x + 18$ (1)

(b) $35a - 21$ (1)

(c) $16m + 40n$ (1)

(3 marks)

3 Solve each equation.

(a) $7x - 9 = 40$ (1)

(b) $4(n + 5) = 36$ (1)

(c) $3(2y - 1) = 27$ (1)

(d) $\frac{m}{3} + 7 = 12$ (1)

(4 marks)

4 A generator costs $C = 12000h + 45000$ shillings to hire for h hours.

(a) Find the cost of hiring it for 6 hours (1)

(b) Find the cost of hiring it for no hours at all (1)

(c) A hire cost $153{,}000$ shillings. Find the number of hours (2)

(4 marks)

5 Nabwire is x years old. Her mother is 28 years older and her brother is half her age. Their three ages add to 73.

(a) Write expressions for her mother's and brother's ages (1)

(b) Write an equation for the total and simplify it (2)

(c) Solve it to find Nabwire's age (1)

(d) Give all three ages (1)

(6 marks)

6 Write an inequality for each situation and draw it on a number line.

(a) A minibus carries no more than 14 passengers (2)

(b) A tank holds more than 500 litres (2)

(6 marks)