Answer in your exercise book, showing your working.

1 Write an algebraic expression for each statement.

(a) 6 more than k (1)

(b) The product of n and 8 (1)

(c) 4 less than the product of x and 3 (1)

(d) The quotient when y is divided by 7 (1)

(4 marks)

2 Evaluate each expression when $m = 4$.

(a) $5m + 2$ (1)

(b) m^2 (1)

(c) $20 - 3m$ (1)

(d) $\dfrac{6m}{8}$ (1)

(4 marks)

3 Simplify each expression.

(a) $7a + 3a$ (1)

(b) $9x - x$ (1)

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

(d) $3p + 2q - p + 4q$ (1)

(4 marks)

4 Simplify each expression.

(a) $4n \times 3$ (1)

(b) $\dfrac{10y}{2}$ (1)

(c) $2 \times 3c + c$ (1)

(3 marks)

5 Are $3x + 8 - x$ and $5x + 5 - 3x + 3$ equivalent? **Simplify both before you decide.**

(3 marks)

6 $4x$ and x^2 are not the same expression.

(a) Find a value of x for which they agree (1)

(b) Find a value of x for which they disagree, and write down both answers (2)

(3 marks)

7 A pupil says: $5y + 3$ *can be simplified to* $8y$.

(a) Find a value of y that shows this is wrong, and write down what each expression comes to (2)

(b) Explain, without using any numbers, why $5y$ and 3 cannot be added together (2)

(4 marks)