MTH 3-15b   Homework 5   **Silver** Level
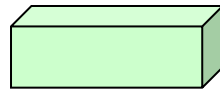
Outcome 1 - Formulae in Geometry

Evaluate the following geometrical formulae…

1 The formula for calculating the volume of a cuboid is given as:
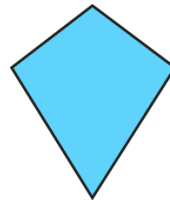
$$V = L \times B \times H$$

where V is the volume, L is the length, B is the breadth and H is the height.

What is the volume of a cuboid when L = 3 m, B = 4 m and H = 2 m?

2 The formula for the perimeter of a rectangle is given as:

$$P = 2L + 2B$$

where P is the perimeter, L is the length and B is the breadth.

What is the perimeter of a rectangle with L = 10 mm and B = 11 mm?

3 The formula for calculating the area of a kite is given as:

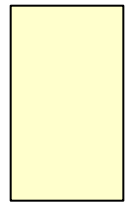$$A = \tfrac{1}{2} \times D_1 \times D_2$$

where A is the area and D_1 and D_2 are the two diagonals.

What is the area of a kite where D_1 = 4 cm and D_2 = 11 cm?

4 The formula for calculating the area of a trapezium is given as:

$$A = \tfrac{1}{2} \times (a + b) \times H$$

where A is the area, a and b are the lengths of the parallel sides and H is the height.

What is the area of a trapezium when a = 3 m, b = 7 m and H = 8 m?