

QUESTION ONE:

Read the descriptions below and state whether you would need to calculate the perimeter (P), area (A) or volume (V). Just write the correct word for each.

- a) $L \times B$ (1)
- b) A farmer wants to build a fence around her vegetable garden. (1)
- c) A gardener wants to place rocks around the edge of a pond. (1)
- d) $L \times B \times H$ (1)
- e) A painter is planning to paint an entire wall. (1)
- f) A pupil wants to glue ribbon around the edge of a card. (1)
- g) A builder wants to know how much water is left inside his tank. (1)
- h) Mr. Smith wants to lay carpet on his bedroom floor. (1)
- i) $L + L + B + B$ (1)
- j) Mr. Goosen wants to cover the school field with grass seeds. (1)

[10]

QUESTION TWO:

Answer the questions below:

- a) Calculate the side length of a square with a perimeter of 64 mm. (1)
- b) Calculate the area of a square in (a). (1)
- c) Calculate the perimeter of equilateral triangle with a side 12 cm. (1)
- d) Calculate all the possible side lengths of a rectangle with an area of 48 m^2 . (4)
- e) Calculate the volume of a rectangular prism with a length of 8 m, a breadth of 6 m and a height of 3 m. (1)

[8]

QUESTION THREE:

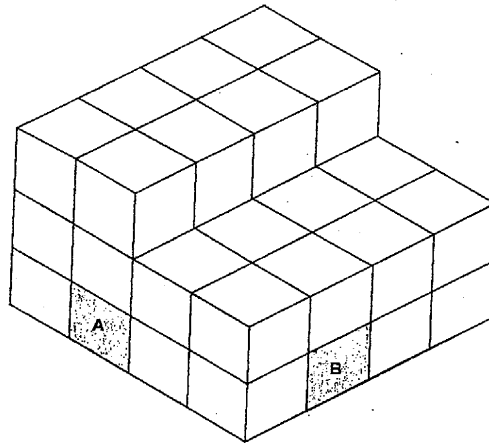
Convert the following lengths:

- a) 8,843 m = [] mm (1)
- b) 538 mm = [] m (1)
- c) 7 300 m = [] km (1)
- d) 34 m = [] cm (1)
- e) 245 mm = [] cm (1)
- f) 7 km = [] m (1)
- g) 2 350 cm = [] m (1)
- h) 112 m = [] km (1)

[8]

QUESTION FOUR:

The 3 – D figure below consists of cubes with the sides of 1 cm. Study the picture and answer the following questions.

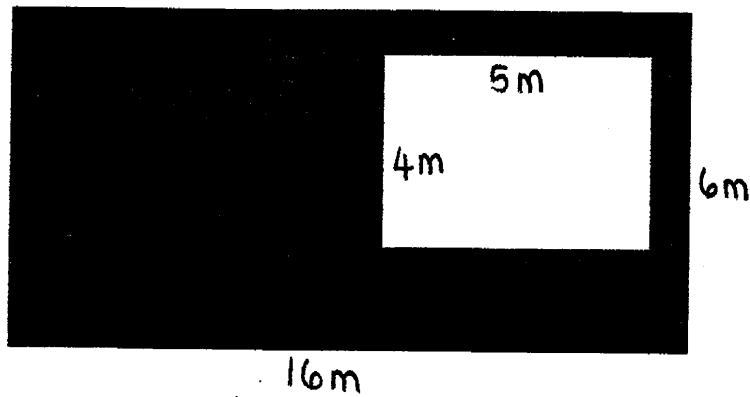


- The area of face A. (1)
- The perimeter of face B. (1)
- The volume of the 3 – D figure. (1)

[3]

QUESTION FIVE:

Refer to the figure below and answer the following question.



- a) Calculate the area and perimeter of the shaded figure.

(2)

[2]

QUESTION SIX:

At addendum A you will find a blue print of the bottom floor of a house. Please cut and paste the blue print onto your answer script and answer the following questions:

- 1) Measure and label each dimension in centimetres (rounding off to the nearest WHOLE CENTIMETRE). Please note that the cutouts represent doors.
- 2) Find the area and perimeter of each space of the blue print. Write your final answers on the blue print.
- 3) LABEL EACH ROOM:
 - The room with the smallest area is the bathroom.
 - The two rooms that have the same perimeter are bedroom #1 and bedroom #2.
 - The room with the largest area holds the living room and kitchen.

- The kitchen has an area of 15 cm^2 and the family room has an area of 55 cm^2 . Divide the room using a dotted line (---) and label accordingly.

[14]

QUESTION SEVEN:

Answer the following questions based on the information above (please show your working).

- a) If every $\frac{1}{2} \text{ cm}$ on the blue print equals 1 m in reality, what would the area of the bathroom be? (2)
- b) You want to re-tile the bathroom. Tiles costs R45 per m^2 . How much would it cost for you to tile the bathroom? (1)
- c) You needed to replace the skirting board in bedroom #1. How much Skirting board would you need (in m). *Remember that every $\frac{1}{2} \text{ cm}$ on the blue print is equal to 1 m in reality.* (1)
- d) Skirting board costs R15 per metre. How much would you need to pay for the skirting boards needed for the bathroom #1 and #2? (1)

[5]

Total: 50

ADDENDUM A

