Extracts from Grade 7 Maths 3-in-1 Class Text & Study Guide

Questions numbers match the numbering in the book.

① AREA & PERIMETER OF 2D SHAPES

Exercise 3 (Page 134)

1. The length of a rectangle is 4 times its breadth.

   If the perimeter is 100 cm calculate the length and the breadth of the rectangle.

3. Two sides of an isosceles triangle are 150 mm and 11 cm.

   3.1 What are the possible lengths of the third side of this triangle?

   3.2 What are the possible perimeters of this triangle?

Exercise 6 (Page 137)

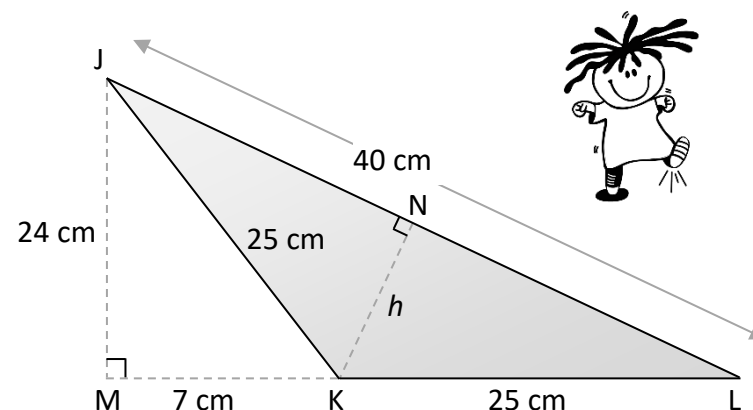2. A rectangle has a perimeter of 32 cm.

   2.1 Determine the dimensions of the rectangle that has the biggest area?

   2.2 What is the area of this rectangle?

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➡ **https://www.theanswer.co.za/english/grade-7-study-guides/**

Exercise 12 (Page 146)
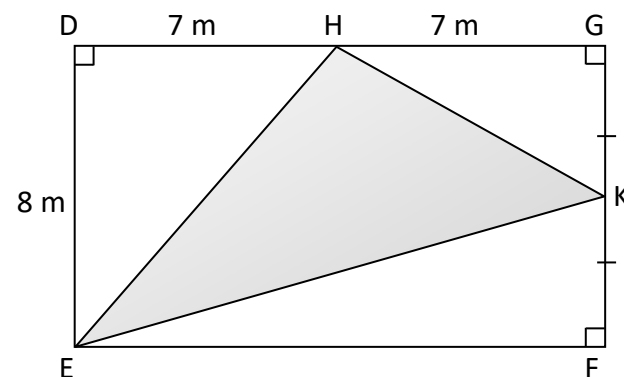
4.

4.1 Calculate the area of $\triangle$JMK.

4.2 Calculate the area of $\triangle$JML.

4.3 Calculate the area of $\triangle$JKL in two different ways.

4.4 Calculate the value of h. (h is the length of KN)

Exercise 13 (Page 147)

1.

1.1 Calculate the area of $\triangle$HEK.

1.2 What fraction of rectangle DEFG is shaded?

SURFACE AREA &

(2) VOLUME OF 3D OBJECTS

Exercise 2 (Page 150)

5. A rectangular prism has 3 faces with the following areas:

    15 cm², 21 cm² and 35 cm².

    5.1 What is the total surface area of the prism?

    5.2 What are the dimensions of the prism?

Exercise 5 (Page 155)

3. A cube has a capacity of 8 ℓ.

    3.1 What is the volume of the cube in cubic centimetres?

    3.2 What are the dimensions of the cube?

    3.3 Calculate the total surface area of the cube.

Exercise 7 (Page 157)

1. The dimensions of a rectangular prism are given as follows:

    length : breadth : height = 4 : 3 : 2

    Its capacity is 648 kℓ.

    1.1 What is the volume of the prism in m³?
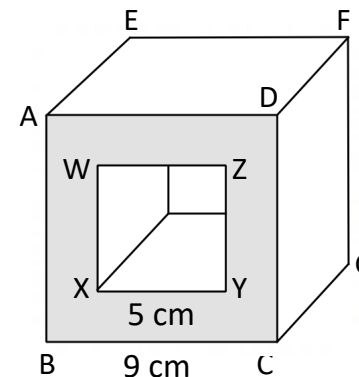
    1.2 Calculate the dimensions of the prism.

    1.3 Calculate the total surface area of the prism.

Reminder

- 1 cm³ = 1 mℓ
- 1 000 cm³ = 1 000 mℓ = 1 ℓ
- 1 m³ = 1 kℓ = 1 000 ℓ

Exercise 9 (Page 161)

2. The prism below is a cube with a hollow centre.
    The base is shaded. WXYZ is a square.

    2.1 Calculate the area of the base of the prism.

    2.2 Calculate the volume of the prism.

    2.3 Calculate the total surface area of the prism.
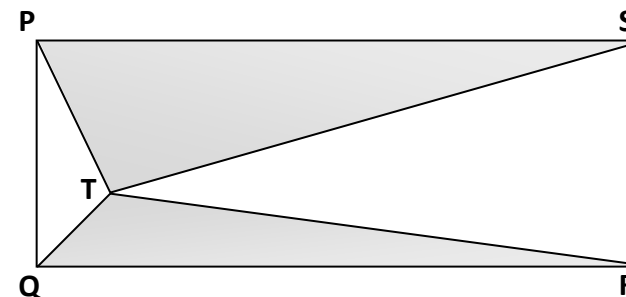
Exam B Paper 2 (Page E10)

7. T is a point inside rectangle PQRS.
    PQ = 4 cm and QR = 8 cm.

    7.1 Calculate the area of PQRS.

    7.2 Write down the area of the unshaded region of PQRS.