Blouberg Ridge Primary School
Grade 7
Mathematics
Paper 2
Mid-Year Examination 2019
Marking Guidelines

Question 1: Underline the correct answer. **[5]**

1.1 A double compact disk (CD) box has a height of 2cm, length of 14cm and a breadth of 12 cm. **(RP)**

Calculate the volume of the CD box.

a) 336 cm b) 28 cm^3 c) 336cm^2 **d) 336cm^3**

1.2 The area of a rectangle is 45cm^2. If the length is 9cm, calculate the breadth. **(RP)**

a) 5cm b) 10cm c) 3cm d) 15cm

1.3 The perimeter of a square is 24cm. The length of a side is: **(RP)**

a) 6cm b) 4cm c)12cm d) 8cm

1.4 The formula to calculate area of a triangle is: **(K)**

a) A=LX B b) A= S x S **c) A= $\frac{1}{2}$ (b x h)** d)d) A= L x B x H

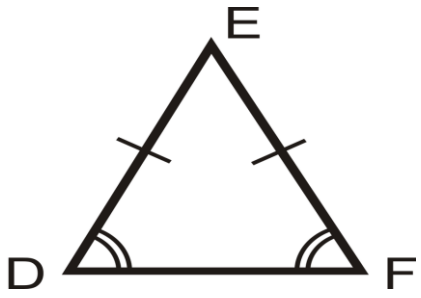
1.5 The triangle on the right is called **(K)**

a) scalene

b) equilateral

c) right-angled triangle

d) isosceles



Question 2: Fill in the blanks. **[5]**

2.1 The sum of the angles in a quadrilateral equals **360°.** (1) **(K)**

2.2 The polygon with nine sides is called a **nonagon.** (1) **(K)**

2.3 A triangle with all sides equal is called **equilateral.** (1) **(K)**

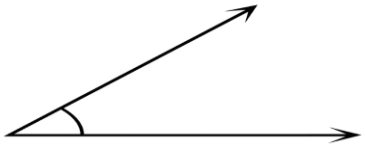
2.4 The **circumference** is the outline or border around the outside of a circle. (1) **(K)**

2.5 A straight angle measures **180°** degrees. (1) **(K)**

Question 3: Angles **[12]**

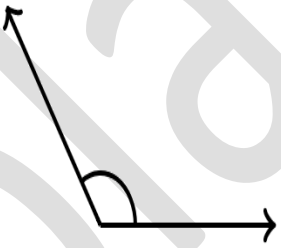
3.1 Measure the following angles. (2) **(K)**

3.1.1



27 °

3.1.2



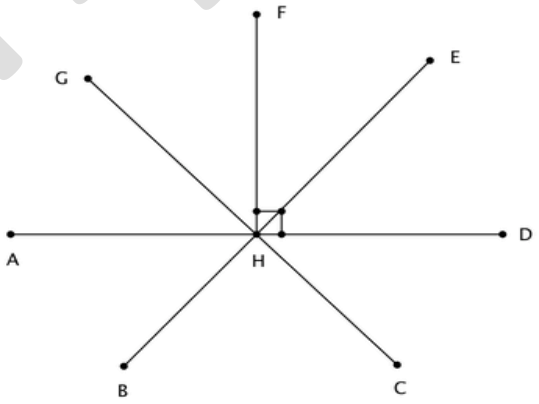
113°

3.2 Look at the diagram on the right and name the type of angles. (3) **(RP)**

3.2.1 GHD - **obtuse**

3.2.2 FHE - **acute**

3.2.3 AHD - **straight**



3.3 Construct and label angle PQR measuring 50°. Remember to show where the angle is formed. (3) **(RP)**

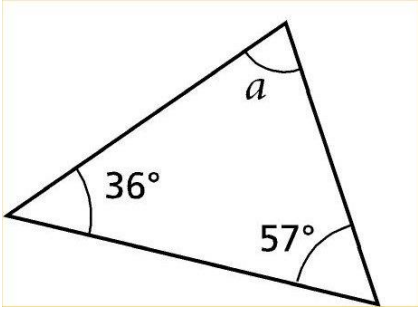
✓**marked angle**

✓**label PQR**

✓**accuracy**

3.4 Use your knowledge of triangles and angles to find the size of the missing angle. Show your working.

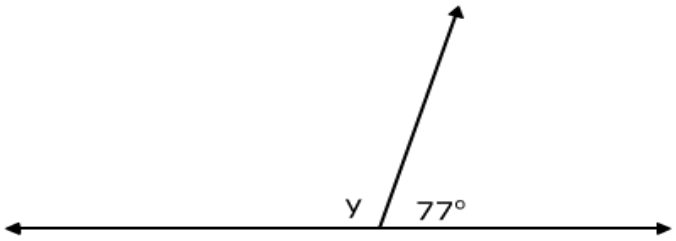
(2) **(RP)**



180° – (36° + 57°)

180° – 93° ✓ = 87°✓

(2) **(RP)**



180 ° - 77° ✓

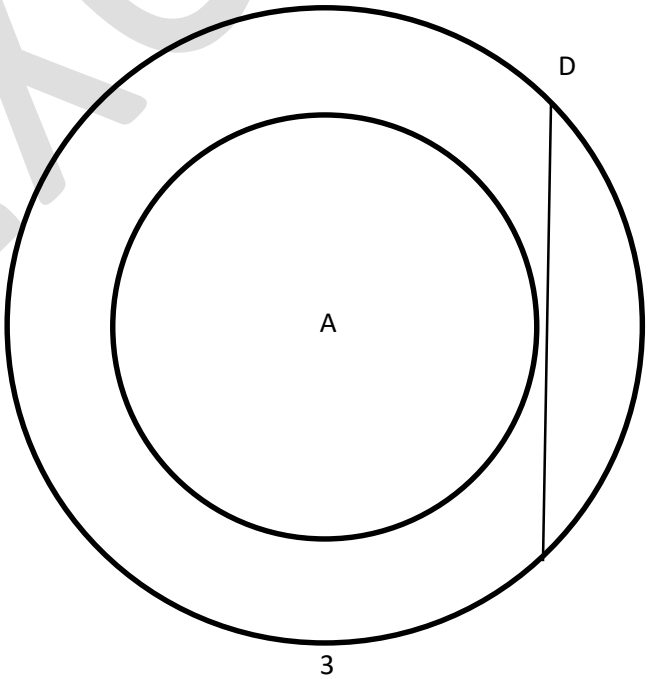
103°✓

Question 4: Circles **[5](PS)**

4.1 Draw concentric circles, one with a diameter of 100 mm, the other with a radius of 3cm. (2)

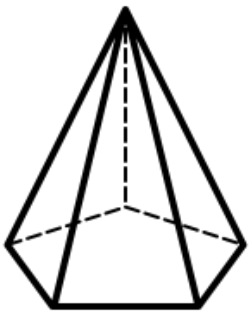
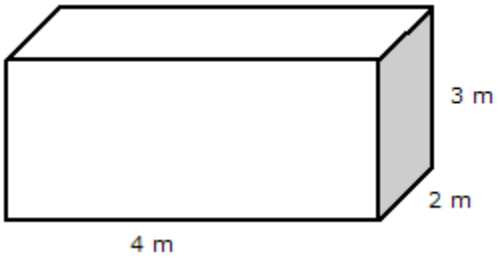
4.2 Mark the center point A. (1)

4.3 Draw a chord in the larger circle so that it does not touch the circumference of the smaller circle. Label the chord DE. (2)



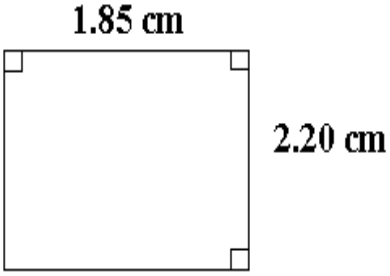
Question 5: Look at the 3D shapes below and complete the table. **[6] (RP)**

E

3D Shape	Faces	Edges	Vertices
	6	10	6
	6	12	8

Question 6: Calculate the area of the shapes below: **[9]**

6.1 (2)

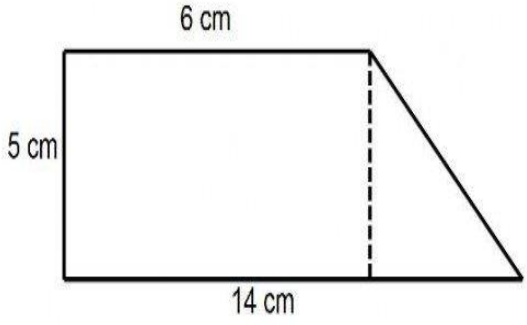


Show all your working.

A = 1,85 cm x 2,20 ✓ (K)

A = 4,07cm^2 ✓ (RP)

6.2 (4)



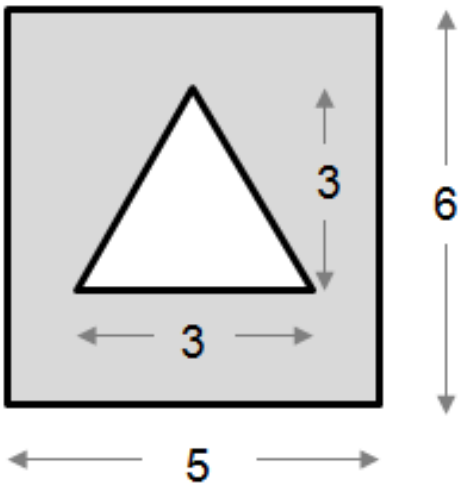
Show all your working.

Area of rectangle: 6cm x 5cm = **30cm^2 ✓ (K)**

Area of triangle: $\frac{1}{2}$ (8cm x 5cm) **= 20cm^2 ✓ (K)**

30cm^2 + 20cm^2 ✓ = 50 cm^2✓ (RP)

6.3 Calculate the area of the shaded region. The measurements given are in centimetres (cm). (3) **(CP)**



Show all your working.

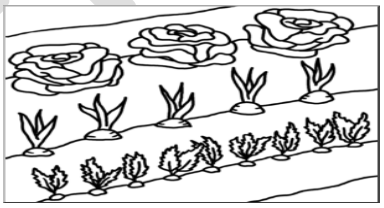
Area of rectangle: 6cm x 5cm = **30cm^2** ✓

Area of triangle: $\frac{1}{2}$(3cm x 3xm) = **4,5cm^2** ✓

30cm^2 -4,5cm^2 = 25,5cm^2 ✓

Question 7: Problem Solving **[8]**

7.1 Mr J. Daniel has a rectangular garden which is 14m long and 7m wide. He builds a fence around it but leaves an opening 2,5 m for a gate.



a) How long is the fence? (2) **(K)**

b) What will the fence cost if it is R47 per metre? (2) **(RP)**

c) If he gets the fence from a cheaper supplier at R39,00 per metre, how much will he save in total? (2) **(CP)**

a) 14m + 14m +7m +7m = 42m

42m – 2,5m ✓

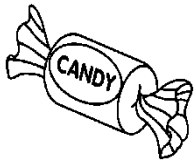
39,5m✓

b) 39,5m x R47✓
=R1856,50 ✓

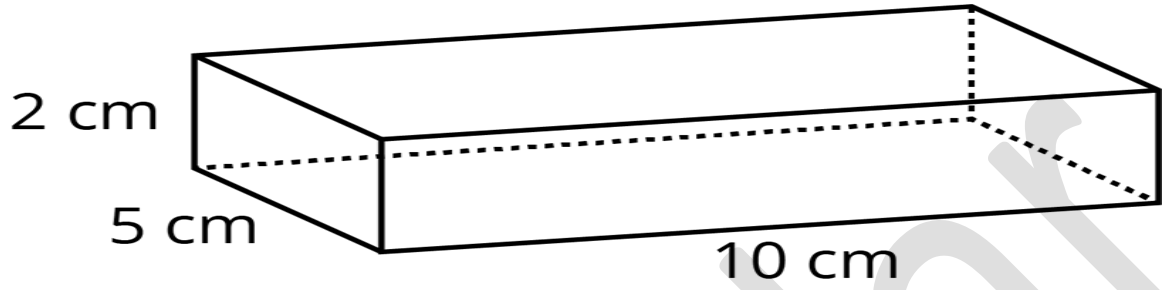
c) R 1856,50 – R 1540,50 ✓
= R316 ✓

7.2. A sweet factory produces a new range of sweets that will fit in the box as shown below.

The surface of the box will be wrapped in a label giving details of the product.



Find the surface area of the box. (2) **(RP)**



2 (10 cm x 2cm) + 2(5cm x 10cm) + 2(2cm x 5cm)✓

160cm^2 ✓