

Level 2 Functional Skills - End of Term Assessment 4

Compound Measurement, Area/Perimeter, Volume/Surface Area and FDP

- Calculate using compound measures including speed, density and rates of pay
- Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles)
- Use formulae to find volumes and surface areas of 3-D shapes including cylinders (formulae to be given for 3-D shapes other than cylinders)
- Identify and know the equivalence between fractions, decimals and percentages

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Pearson Edexcel Functional Skills

End of Term Assessment 4

Time:

20 minutes then 30 minutes

Mathematics

Level 2

You must have:

Pen, HB pencil, eraser, ruler graduated in cm and mm, protractor, pair of compasses. Tracing paper may be used.

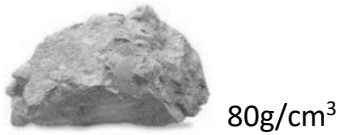
Total Marks

41

Non-Calculator Section



1) The density of a rock is 80g/cm^3 . Find the weight of a piece of the same rock that has a volume of 2.5cm^3 .



(2)

2) Ben needs the total perimeter measurement around the rectangular buildings. The formula to find the perimeter is shown below. L=length W=width.

$$P = L + \frac{1}{3}L + \frac{1}{2}W + L + \frac{1}{2}W + \frac{1}{2}W + L + W$$



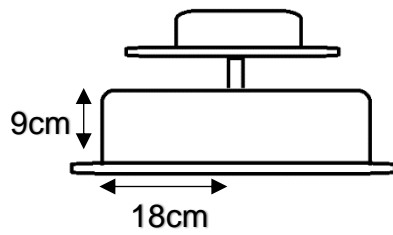
Show your workings.

(3)

3) Kim and Tim's wedding cake is made from two tiers of circular cakes. The radius of the larger bottom tier is 18cm and has a height of 9cm. The top tier is $\frac{2}{3}$ the height and radius of the bottom tier.

Use Pi as 3, find the volume of the top tier of the wedding cake.

You must show your workings.



(5)

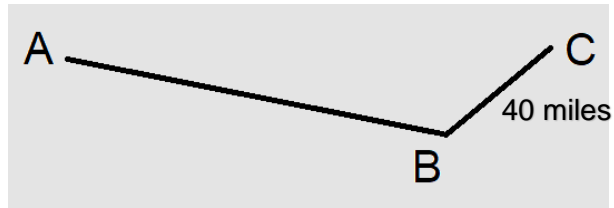
4) a) Convert 0.153 into a fraction

(1)

b) Write 16.3% as a decimal

(1)

5) Samir travels between three towns A, B and C. The distance between B and C is shown. He travels at 50mph between towns A and B. It takes him 2hrs to travel to town B from A



a) Find the distance between towns A and B

(1)

b) He speeds up during his journey between towns B and C to 60mph. Calculate the total time for both journeys (from A to C through B). Show your workings.

(2)

Calculator Section



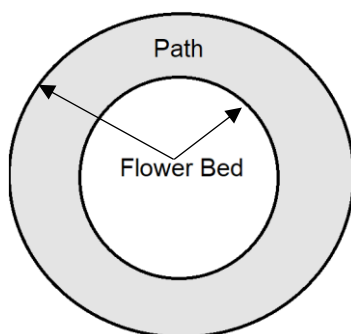
1) In March, Kelly was paid £2130, she worked 35.5 hours. In April she was paid £2368 working a total of 37 hours.

Assume 4 weeks=1 month

Find which month had a better rate of pay. Show your workings.

(3)

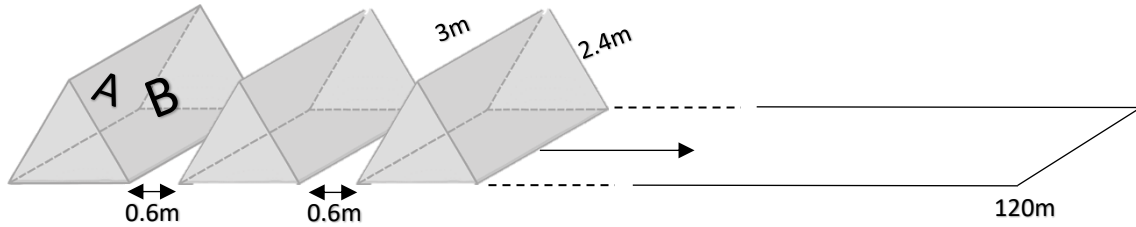
2) Mike will fill the path in his garden around a circular flower bed with small tiles. The tiles can be cut to size to fill the area. The radius of the path is double the flower bed. The flower bed has a radius of 1.72m. Use $\pi=3.14$.



Find the area of the path in m^2 . Show all your workings.

(6)

3) The two top faces, A and B as shown, of each triangular prism are covered in solar panels. The triangular end of each prism is equilateral. Each solar panel is a rectangle 2.4m wide and 3m long. There is a gap between each prism of 0.6m.



a) Calculate the surface area of a single panel.

(2)

b) Find the number of prisms that can be placed in a single row 120m long. Show your workings.

(3)

c) Each prism is 2m high. Find the total volume of a single prism.

Volume of a triangular prism = $\frac{1}{2} bh \times L$

(3)

| | |
|--|-------|
| | m^3 |
|--|-------|

4) Complete the division then write your answer as a percentage to 1dp

$$\begin{array}{r} 2398 \\ \hline 2976 \end{array}$$

(3)

5) a) A gram of gold cost £46.58. The density of gold is 19.3g/cm^3 . Zak buys a gold ring for £300. Find the volume of gold used in the ring.



(3)

b) Jane buys a similar gold ring of 0.5cm^3 to match Zak's. Find its cost.

(3)