

OCT 2017

DEPARTMENT OF MATHEMATICS

PROBLEM SOLVING CHALLENGE

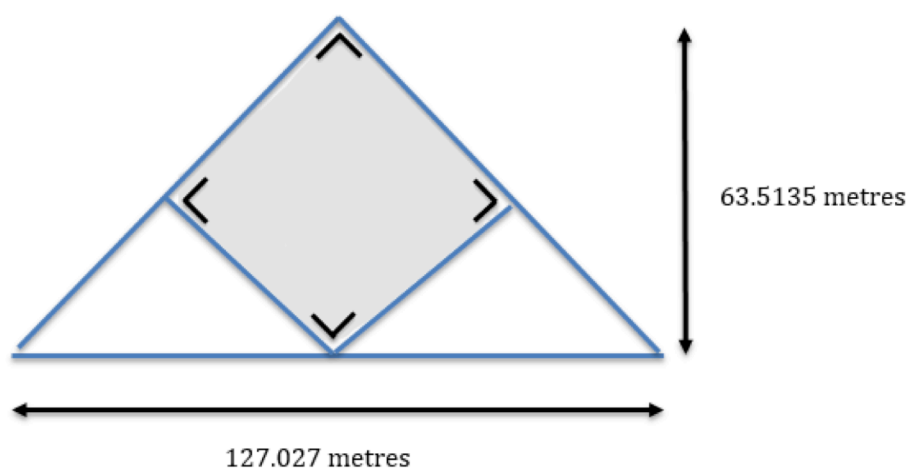
Q1.

Junior Cycle

Find the area of the shaded region in the large triangle below. Find the area a second time using an alternative method.

Round your answer correct to the nearest whole number each time and make sure to show all your workings.

A correct solution must have two methods of solving the problem.



Q2.

Senior Cycle

- (i) The surface area of a cuboid is 1174 cm^2 . The width of the cuboid is one centimetre longer than the length. The height of the cuboid is one centimetre longer than the width. Find the volume of the cuboid.
- (ii) The volume of a cuboid is 5814 cm^3 . The width of the cuboid is one centimetre longer than the length. The height of the cuboid is two centimetres shorter than the width. Find the surface area of the cuboid.

Answers on an A4 sheet with your Name, Year and Class should be given to Mr. McManus or to Mr. McEvoy in room 33 before 4pm on Friday 27th of October.

*Monthly Prize for both **Junior** and **Senior** Cycle.**

Good Luck.

Junior Cycle students answer question 1 only.

Senior Cycle students answer question 2 only