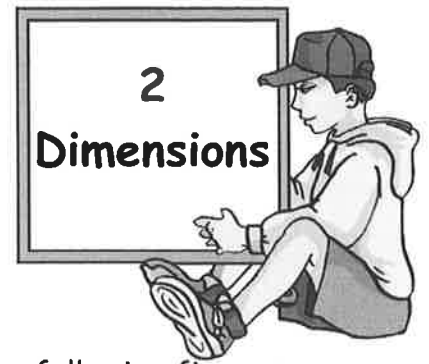
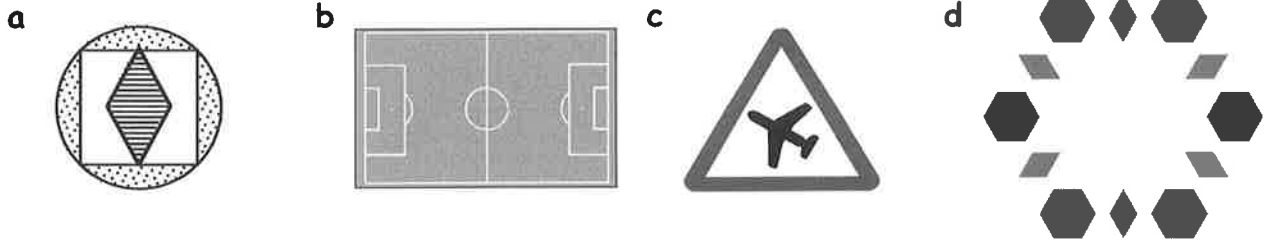


# CHAPTER 9

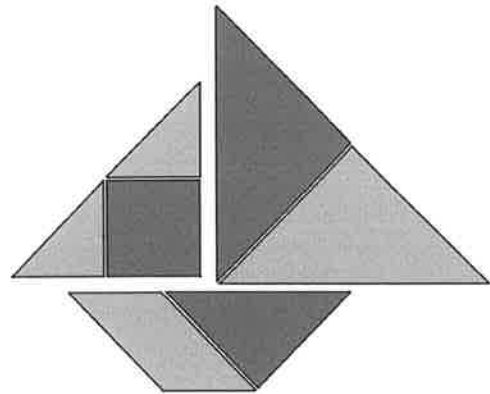


## Exercise 1

1. Identify the (2 Dimensional) mathematical shapes in the following figures :-



2. Name the shapes in the tangram and state how many of each there are.



3. How many sides has a :-

- a hexagon
- b octagon
- c decagon
- d dodecagon ?

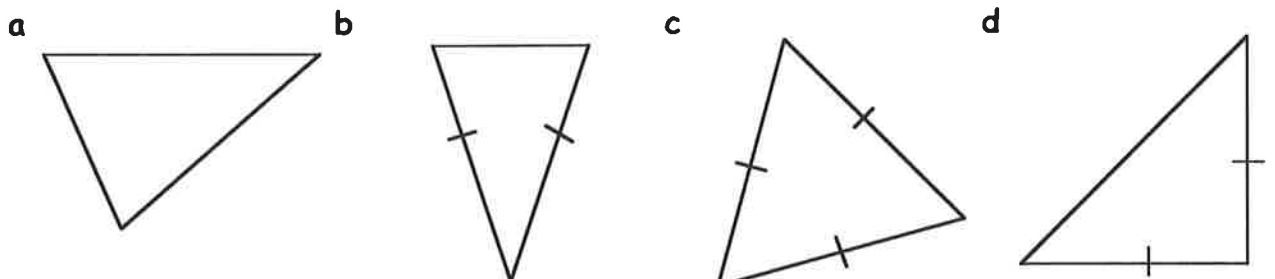
4. Name the polygon with 5 sides.

## Exercise 2

1. What name is given to a triangle with :-

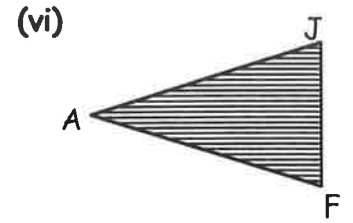
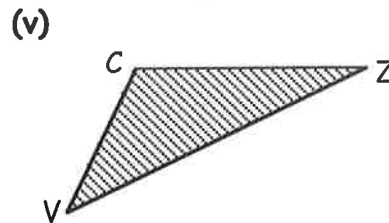
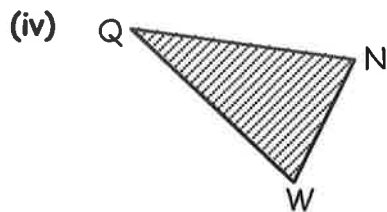
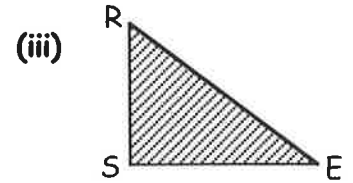
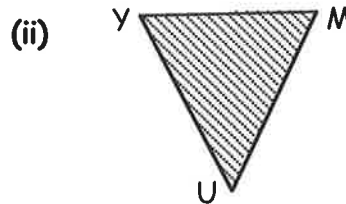
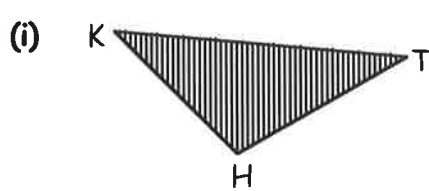
- a all 3 sides equal in length
- b 2 of its sides equal in length
- c sides, all of a different length ?

2. State which type of triangle each of the following is :-



### Exercise 3

- Name each triangle using 3 capital letters and a "Δ" sign. (e.g. ΔABC).
  - State whether it is acute angled, right angled or obtuse angled.



### Exercise 4

**Step 1**

name it using  
3 letters

**Step 2**

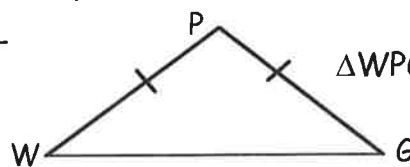
describe it as :-  
(i) acute-angled  
(ii) right-angled  
(iii) obtuse-angled

**Step 3**

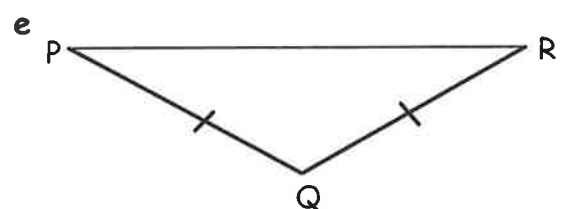
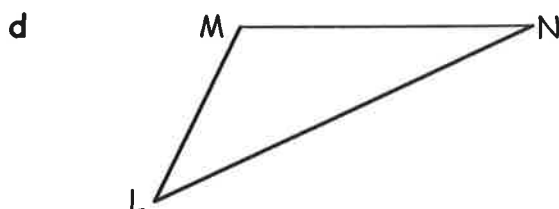
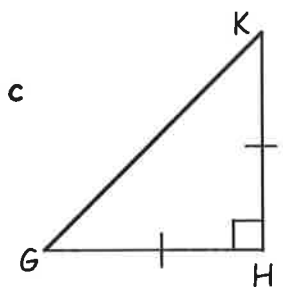
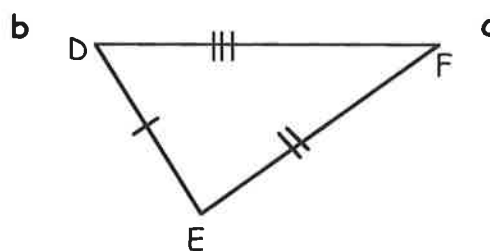
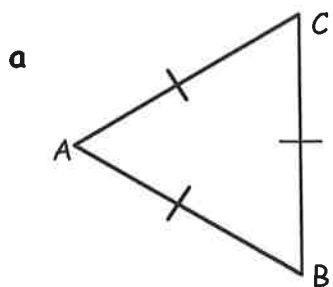
followed by :-  
(i) isosceles triangle  
(ii) equilateral triangle  
(iii) scalene triangle

- Use each of the 3 steps above to describe each of the following triangles :-

FOR EXAMPLE :-

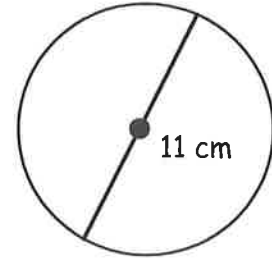


ΔWPG is an **obtuse angled isosceles** triangle.



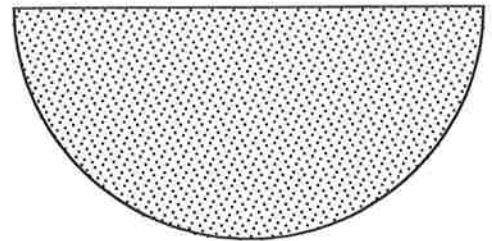
## Exercise 5

1. This is a sketch of a circle whose diameter is 11 cm.  
What must the length of its **radius** be ?

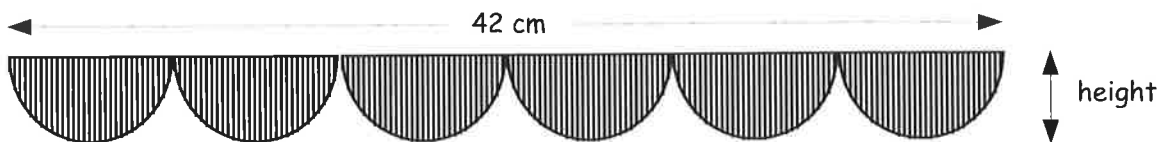


2. The radius of a circle is 13.5 millimetres.  
What must the length of its **diameter** be ?

3. Look at this **semi-circle**.  
a Use a ruler to measure its **diameter**.  
b Write down what size its **radius** must be.



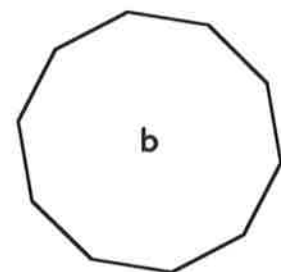
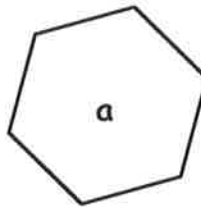
4. The length of the shape below is 42 cm.



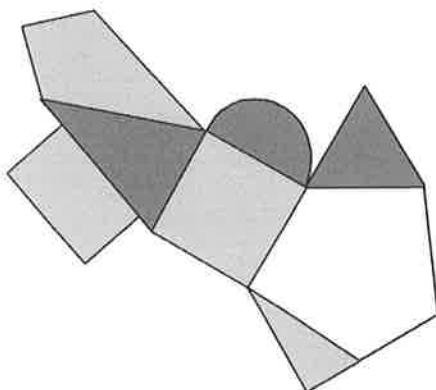
- a What must the diameter of each semi-circle be ?  
b What is the height of the shape ?

## Revision Exercise

1. Write down the names of each of these two **polygons**.



- 2.

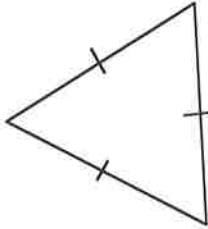


Name all the mathematical shapes you can see in the figure shown opposite.

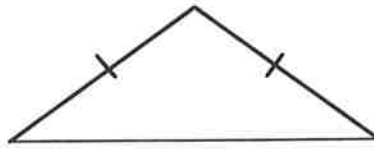
3. Describe each of these triangles by using an expression from this list.

scalene triangle  
isosceles triangle  
equilateral triangle

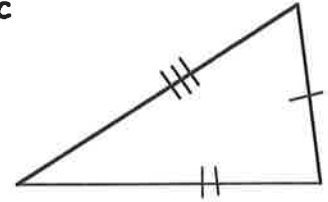
a



b



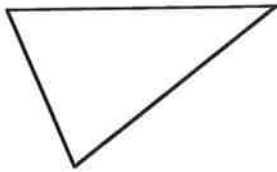
c



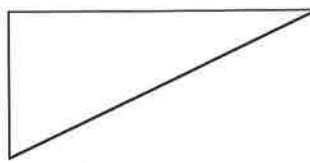
4. Describe each of these triangles by using an expression from this list.

right angled  
acute angled  
obtuse angled

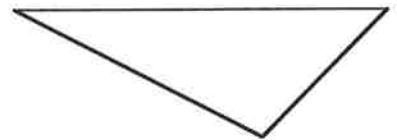
a



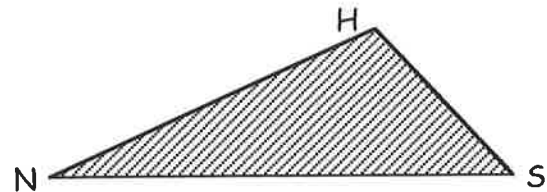
b



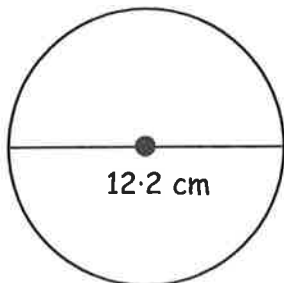
c



5. Name and describe this triangle fully.



6.



The **diameter** of a circle is 12.2 centimetres.  
Write down the length of its **radius**.

7. This shape consists of a rectangle measuring 30 cm by 20 cm, with a quarter circle on the end.

Calculate the **full length** of the shape. (marked ?)  
(Don't measure it with a ruler).

