

Learning about Triangles

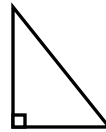
Reading and Discussion

Polygons are closed shapes which have three or more sides. A square is a polygon and so is a triangle. Most polygons are named according to the number of sides or angles they have. **Tri** means three. So a **tricycle** has three wheels, and a **triangle** has three sides and three angles.

There are different types of triangles and they are named according to the type of angle they have.

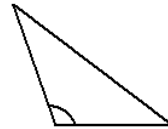
A **right triangle**

has one right angle - 90° ,



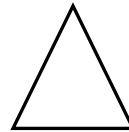
An **obtuse triangle**

has one obtuse angle - greater than 90°



An **acute triangle**

has three acute angles – less than 90° .



Now let's look at description of the triangle. The bottom of the triangle is called the **base**. The other two sides are called the **legs**. The angles on either side of the base are the **base angles**, and the third angle, which is opposite the base, is called the **vertex angle**.

The angles of any triangle add up to 180° , so if we know two of the angles, we can work out what the third angle will be without measuring it. In fact, if we know the two base angles and the length of the base we have enough knowledge to be able to draw the triangle. Try it. Draw a triangle with the base measuring 10cm and both base angles measuring 60° . What is the size of the third angle? Yes, it is also 60° . What type of triangle have you drawn? All three angles are less than 90° so it is an acute triangle.

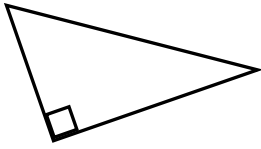
Name _____

Date _____

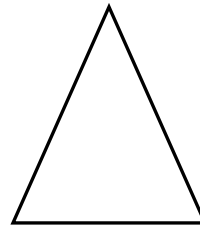
Activities

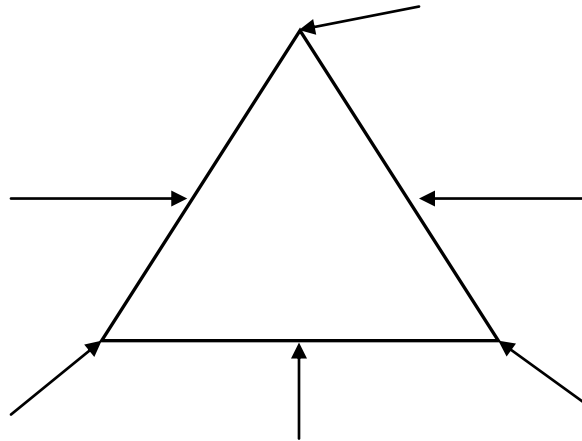
A: Label the triangles

Can you fill in the labels correctly?









B: Now draw your own.

Draw the following triangles and answer the questions about them. You can choose the length of the base.

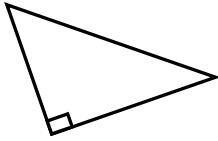
1. Draw a triangle with one angle of 30° and one of 60° .
What does the third angle measure? What type of triangle is it?
2. Draw a triangle with one angle of 35° and one of 70° .
What does the third angle measure? What type of triangle is it?
3. Draw a triangle with one angle of 40° and one of 30° .
What does the third angle measure? What type of triangle is it?

Name _____

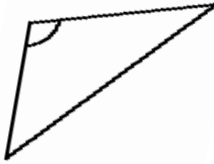
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Answer Sheet

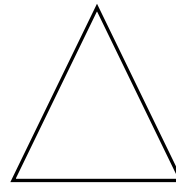
Activity A



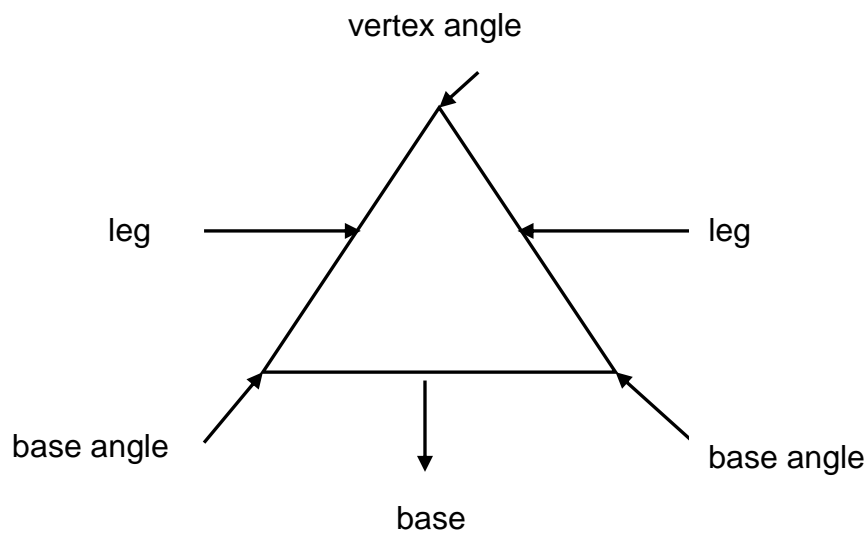
right triangle



obtuse
triangle



acute
triangle



Activity B

1. 90° ; right triangle.
2. 85° ; acute triangle.
3. 110° ; obtuse triangle.