Classifying Triangles

Cross-Curricular Focus: Mathematics

Every triangle has three sides and three angles. The angles always add up to 180º. There are some differences in triangles, though. You may have noticed that they can be shaped slightly differently. They can have different-sized angles. They can have sides that are different lengths.There are three kinds of triangles. Triangles can be **equilateral**, **isosceles**, or **scalene**.

An equilateral triangle has three equal sides. It also has three equal angles. The three angles of an equilateral triangle are each 60º. They add up to 180º.

The second kind of triangle is an isosceles triangle. An isosceles triangle has two sides that are equal, and one that is different. It also has two angles that have the same measurement. The third angle is different. The three angles add up to 180º.

The last kind of triangle is a scalene triangle. A scalene triangle has three sides that are different lengths, and three angles that have different measurements. However, the three angles still add up to 180º.

Triangles get a second name based on the kind of angles they have inside. Sometimes, all the angles are small. If they are all less than 90º, the triangle is called an acute triangle. If it has one right angle (exactly 90º), it is called a right triangle. If it has an angle that is more than 90º, it is called an obtuse triangle. The names can be used together to describe triangles very precisely. For example, you can have a right isosceles triangle. It would have two equal sides, a 90º angle and two 45º angles.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is the sum of the angles of any triangle?

_____

2) If a triangle has no equal sides and no equal angles, what is it called?

_____

3) How many degrees are in a right angle?

_____

4) What is a triangle called if all the angles and all the sides are equal?

_____

5) In your own words, explain what to look for if you want to classify a triangle.

_____

_____

_____

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Name: Key

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Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Actual wording of answers may vary.

1) What is the sum of the angles of any triangle?

180º

2) If a triangle has no equal sides and no equal angles, what is it called?

a scalene triangle

3) How many degrees are in a right angle?

90º

4) What is a triangle called if all the angles and all the sides are equal?

an equilateral triangle

5) In your own words, explain what to look for if you want to classify a triangle.

Should include length of sides and types of angles.