

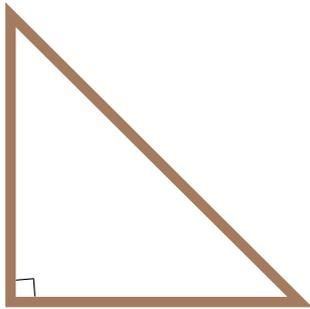
Special Right Triangles

Trigonometry Worksheet

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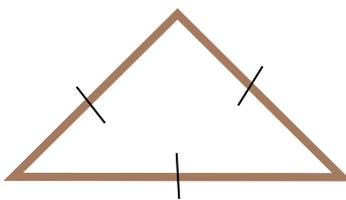
1. Consider isosceles right triangle below, and label all of the following information on it.



a) The two legs from the right angle . Label both legs with the word leg	b) Label the hypotenuse side of the triangle with the label h
c) The two legs are congruent, since it is an isosceles triangle. Mark each leg with a tricky mark.	d) The two base angles are congruent. Put a "rainbow arc " on each base angle and mark each arc with a tricky mark.
e) Since there are 180 degree in the interior of every triangle and 90 degree already we know since it is a right triangle, How much is each acute angle?	f) Mark all the information on the figure given

2. The isosceles right triangle is always called as "45-45" or "45-45-90" right triangle. Elaborate why it is called so?

3. Consider a different kind of special right triangle, the so called 30-60-90 right triangle. Let's consider the equilateral triangle and label all of the information on it.



a) It is an equilateral triangle, so mark each angle congruent using a rainbow arc with a tricky mark through each angle	b) Since there are 180 degree in the interior of each triangle, and every angle is congruent, how much is the measure of each of the three congruent angles?
c) Mark the angle find from the question b) in all the three angles of the figure	d) Start from the top vertex, draw a straight line down to the base. Your line should be perpendicular to the base. Mark it with a symbol 90 degree angle
e) So in the figure there will be two right triangles. Shade just one of them grey. Figure out the three measures of the angles of your grey triangle	f) Mark the information about the three angles on the grey figure.
	g) Label the short legs of the grey triangle with the word short leg, label the long leg with the word long leg, and label the hypotenuse of the grey triangle with the word hypotenuse.

4. Half of an equilateral triangle is often called as "30-60-right or "30-60-90" triangle. Explain why it is called with that name?