Anglegs Practice Kit-Answer Key

Section #1

Anglegs are line segments that can be joined together to make closed figures called polygons.

Make as many different types of polygons using the angleg pieces.

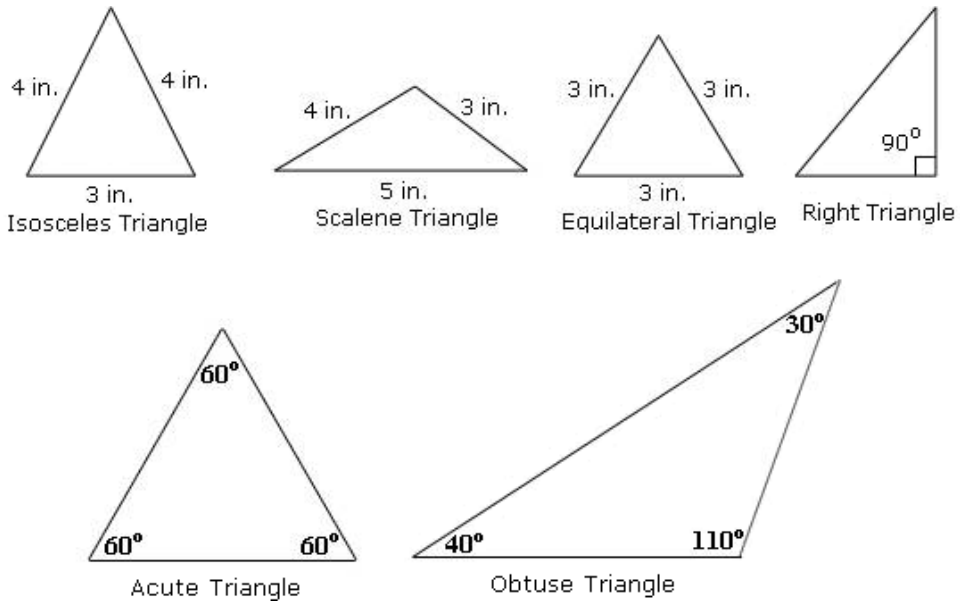
1. How many sides did the polygon with the least number of sides have? Draw and describe what you built? What is the name of this polygon? Does it have any other names?

Solutions will vary. Here are some general names for shapes/polygons.

Number of sides	*Name of polygon*
3	*triangle*
4	*quadrilateral*
5	*pentagon*
6	*hexagon*
7	*heptagon*
8	*octagon*
9	*nonagon*
10	*decagon*
12	*dodecagon*

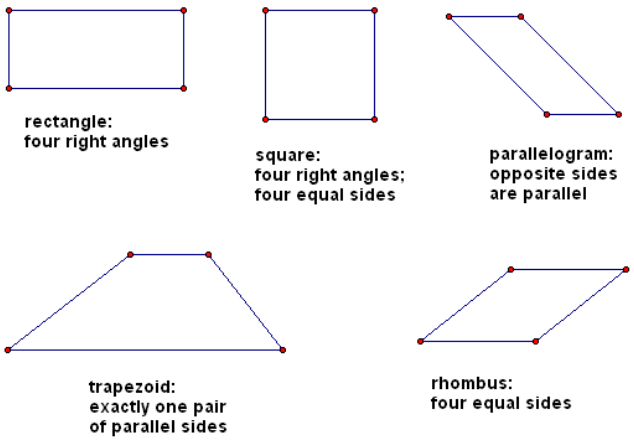
Anglegs Practice Kit-Answer Key

Types of Triangles



http://typesoftriangles.org/wp-content/uploads/2011/10/Types-of-Triangles.gif

Types of Quadrilaterals



http://www.onemathematicalcat.org/Math/Geometry_obj/graphics/quads.bmp

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2. How many sides did the polygon with the greatest number of sides have? Draw and describe what you built? What is the name of this polygon? Does it have any other names?

Answers will vary. (see #1)

3. Each angleg has its length stated in cm. Find the length of each color of angleg.

Color	Length of Angleg in centimeters (cm)
Blue	12.24 cm
Orange	5 cm
Green	8.66 cm
Red	14.14 cm
Yellow	10 cm
Purple	7.07 cm

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4. Create the following triangles using Anglegs. Then using a protractor find the angle measurement for each angle (A, B, C), and total the angles.

Triangle	Anglegs	Angle Measurement	Total Angle
Equilateral	3 purple	A: 60° B: 60° C: 60°	180°
Isosceles	2 green, 1 blue	A: 45° B:45° C: 90°	180°
Scalene	1 Yellow, 1 Orange, 1 Green	A: 30° B: 60° C: 90°	180°

5. What did you notice about the sum of the angles of each triangle?

I noticed that the sum of the angles of each triangle equal 180 degrees.

6. Using the triangles above find the perimeter of each triangle.

Triangle	Anglegs	Side Measurement	Perimeter
Equilateral	3 Blue	A: 12.24 cm B: 12.24 cm C: 12.24 cm	36.72 cm
Isosceles	2 Blue, 1 Red	A: 12.24 cm B: 12.24 cm C: 14.14 cm	38.62 cm
Scalene	1 Blue, 1 Red, 1 Green	A: 12.24 cm B: 14.14 cm C: 8.66 cm	35.04 cm

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Section #2

Technology Connection

Use Google to explore the following questions.

Can an equilateral triangle be classified as an isosceles triangle too?

Yes, an equilateral triangle is a special type of isosceles triangle. An isocscel triangle has at least 2 sides with the same length.

Can a square be classified as a rectangle too?

Yes, a square is a special type of rectangle. It has two sets of parallel lines and four 90° angles.

Classifying Triangles by Angle

http://www.math-play.com/classifying-triangles/classifying-triangles.html

A Quiz on Types of Triangles

http://www.henryanker.com/Math/Geometry/Types_of_Triangles_Set_01.swf

Measuring Angles with a Protractor

http://www.mathplayground.com/measuringangles.html

Alien Angles (Challenging)

http://www.mathplayground.com/alienangles.html