

## Use AngLegs to model the triangles shown. Write the scale factor for Triangle 2.

**1.** Original Triangle





The scale factor of Triangle 2 is \_\_\_\_\_.

## Using AngLegs, build a triangle with the legs named. Then build a triangle with a scale of 3:1. Sketch the models.

2. orange, yellow, and purple

### Draw each figure using the scale factor given.

**3.** scale factor of 2



4. scale factor of 3



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**Challenge!** Triangle B has a scale factor of 2:1 to Triangle A. Which triangle is larger and by how much? Draw a picture.

Name \_\_\_\_\_

Use the AngLegs shown. Determine whether you can build a triangle.



Can you build a triangle? \_\_\_\_\_

### Using AngLegs, try to make at least one triangle. Draw the triangle(s) or write an explanation if no triangle can be made.

**2.** Angles: 30°, 60°, 90°

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Geometry

3. Sides: orange, orange, yellow

**4.** Angles: 30°, 30°, 60°

5. Sides: blue, green; Angle between: 45°

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**Challenge!** Can you define a triangle by naming its three angles? Explain.



Use Relational GeoSolids to model each cylinder. Use a ruler to find the diameter of the base. Find the circumference of the base. Use 3.14 for  $\pi$ .



Draw a circle that has each diameter. Find the circumference of the circle. Use 3.14 for  $\pi$ .

3. 3 inches

4. 11 centimeters

Find the circumference of each circle. Use 3.14 for  $\pi$ .



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**Challenge!** Explain the meaning of  $\pi$  in terms of the parts of a circle. How is the circumference of a circle related to  $\pi$ ?



Use Fraction Circles to model the circle. Use a Centimeter Grid to find the area of the circle.





2. 8-cm radius

3. 2-inch diameter

### Find the area of each circle. Use 3.14 for $\pi$ .



**Challenge!** Determine the area of a circle on grid paper by arranging its sections into a figure having a length and width. Describe the length. Describe the width.

Name





Using an XY Coordinate Pegboard, model an irregular figure. Sketch the model. Find the area of the irregular figure.



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Geometry

Find the areas of the shapes into which you can divide your figure.



### Find the area of each figure.



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**Challenge!** Why do you divide an irregular figure into other shapes to find its area? Draw a picture to help.

Name



# Use Pattern Blocks and 1-inch Triangular Grid Paper to build each figure shown. Find the number of triangles covered. Write the area of the figure in triangular units.



Using Pattern Blocks and 1-inch Triangular Grid Paper, build a quadrilateral that has each area given. Sketch the model.

**3.** 20 triangular units



4. 30 triangular units



**Challenge!** Explain how a hexagon formed using two trapezoids can have the same area as a hexagon formed using six equilateral triangles. Draw a picture to help.