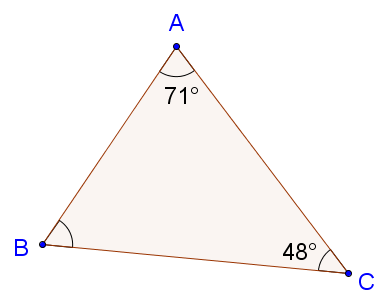
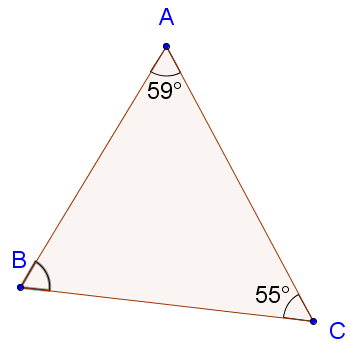
**Activity 3.1.5 Applications of the Triangle, Quadrilateral and   
Polygon Angle Sum Theorems**

**Part I -- Triangles**

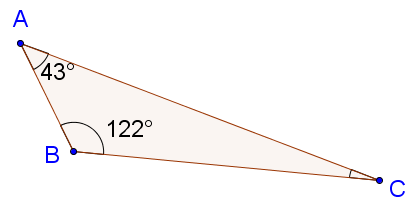
Determine the missing degree measure for each diagram. m



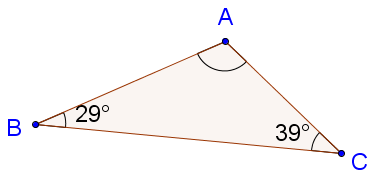
1. m = \_\_\_\_\_\_\_



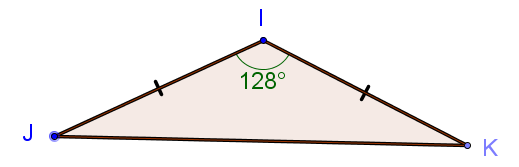
1. m = \_\_\_\_\_\_\_



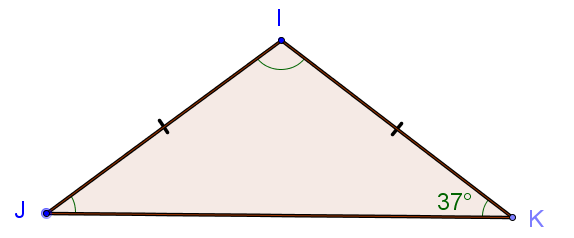
1. m = \_\_\_\_\_\_\_



1. m = \_\_\_\_\_\_\_

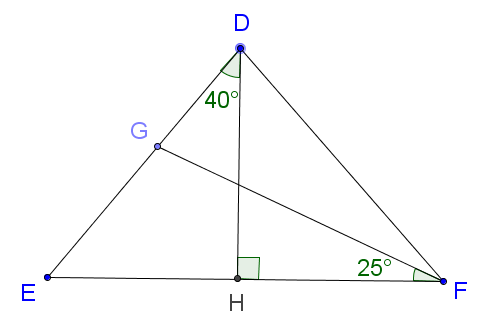


1. m = \_\_\_\_\_\_\_



1. m = \_\_\_\_\_\_\_

Use the diagram at the right for questions 7 and 8.

1. m  = \_\_\_\_\_\_\_
2. m = \_\_\_\_\_\_\_
3. Use the diagram below to determine the measures of the angles.



m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

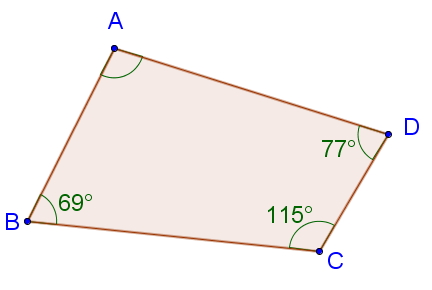
m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

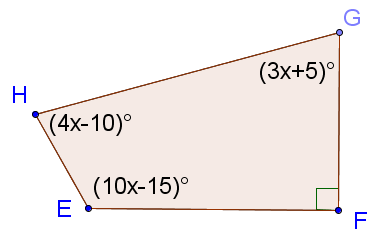
m = \_\_\_\_\_\_\_

**Part II -- Quadrilaterals and Other Polygons**

1. Determine the measure of .

m = \_\_\_\_\_\_\_

1. Determine the value of *x*. Then determine the measures of all of the angles in the figure.



*x* = \_\_\_\_\_\_\_

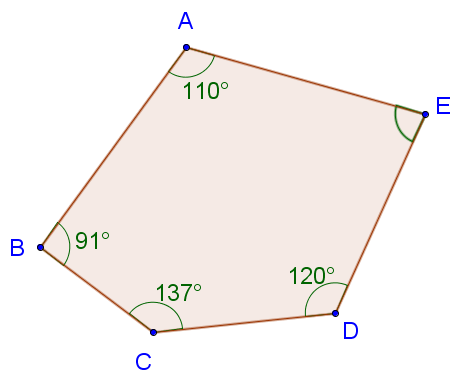
m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

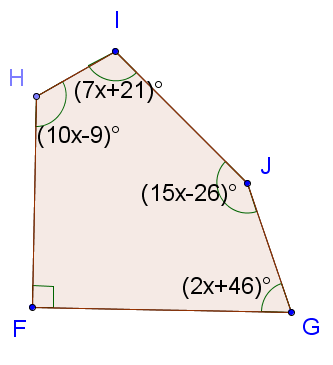
m = \_\_\_\_\_\_\_

1. Determine the measure of .

m = \_\_\_\_\_\_\_

1. Determine the value of *x.* Then determine the measures of all of the angles in the figure.

*x* = \_\_\_\_\_\_\_



m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_