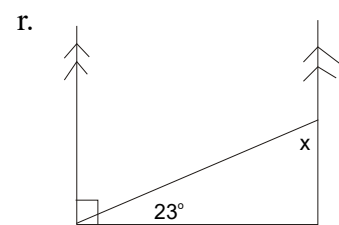
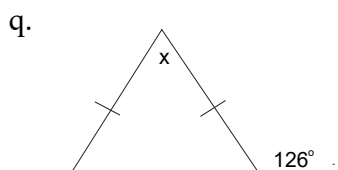
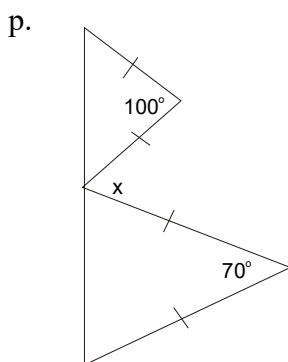
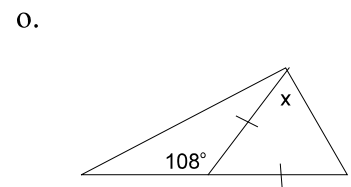
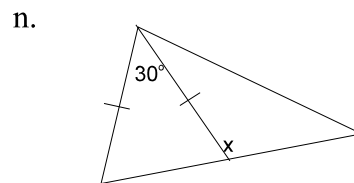
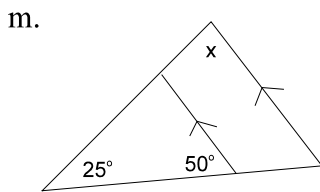
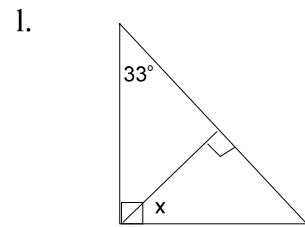
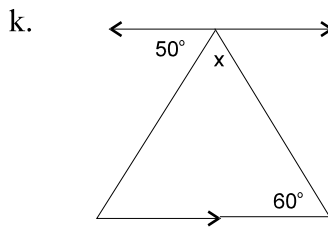
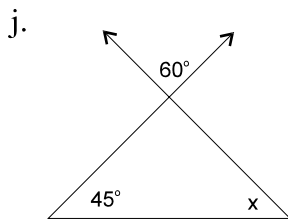
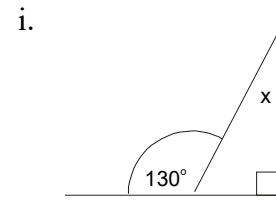
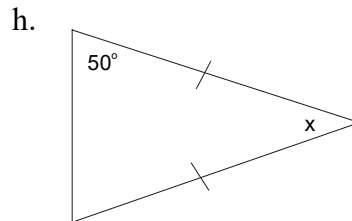
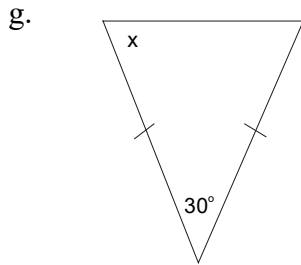
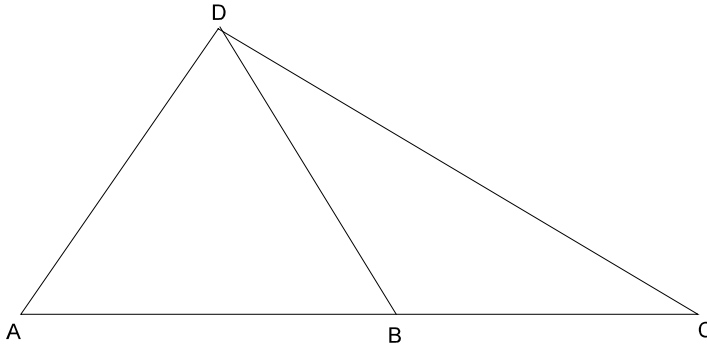


GEOMETRY 5: TRIANGLES

1. Determine the measure of angle x in each of the following diagrams. (a-f are in Mathsheat: Geometry 4.)



2. In the drawing below, $\overline{AD} = \overline{BD}$, $\angle A = 62^\circ$ and $\angle C = 34^\circ$



Find the following and state reasons for your answers.

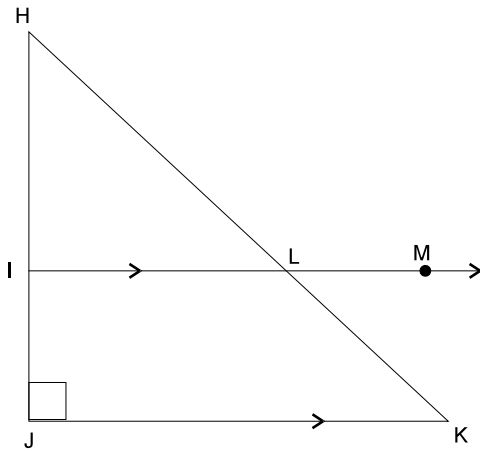
$\angle ABD =$

$\angle CBD =$

$\angle ADB =$

$\angle BDC =$

3. In the drawing below $\angle J = 90^\circ$, $\overrightarrow{IL} \parallel \overrightarrow{JK}$ and $\angle HLM = 130^\circ$. Find the following and state reasons for your answers.



$\angle ILK =$

$\angle K =$

$\angle H =$

$\angle HIL =$

ANSWER KEY

1. g. 75° h. 80° i. 40° j. 75° k. 70° l. 33°
m. 105° n. 105° o. 54° p. 85° q. 72° r. 67°
2. $\angle ABD = 62^\circ$ angles opposite congruent sides of isosceles triangles are congruent
 $\angle CBD = 118^\circ$ supplementary to 62°
 $\angle ADB = 56^\circ$ angle sum of $\triangle ABD$ is 180°
 $\angle BDC = 28^\circ$ angle sum of $\triangle BCD$ is 180°
3. $\angle ILK = 130^\circ$ vertically opposite angle to 130°
 $\angle K = 50^\circ$ angles on the same side of the transversal are supplementary
 $\angle H = 40^\circ$ angle sum of a triangle is 180°
 $\angle HIL = 90^\circ$ corresponding angle to $\angle J$

Source: Government of BC used with permission.