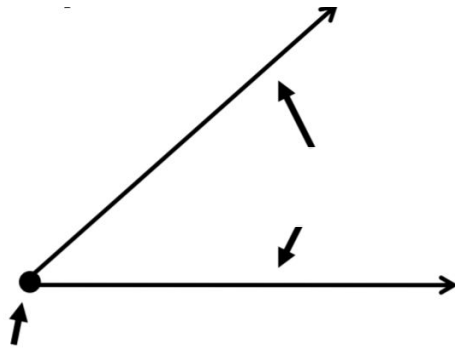


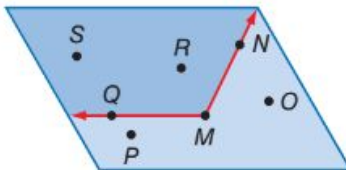
Ray:

Angle:



Vertex:

Side:



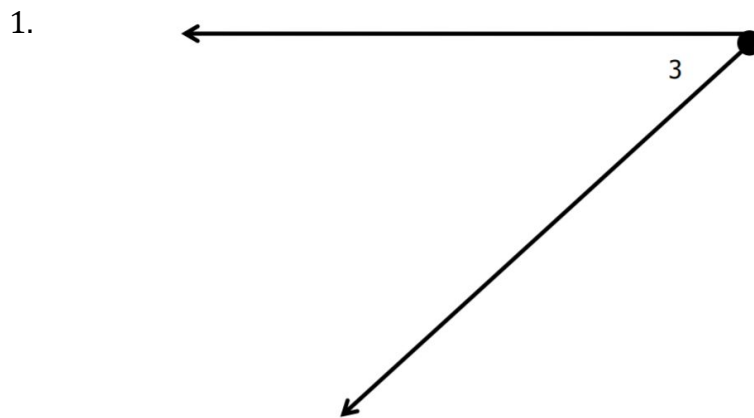
Interior of Angle:

Exterior of Angle:

1. Use the figure below to answer the following questions:

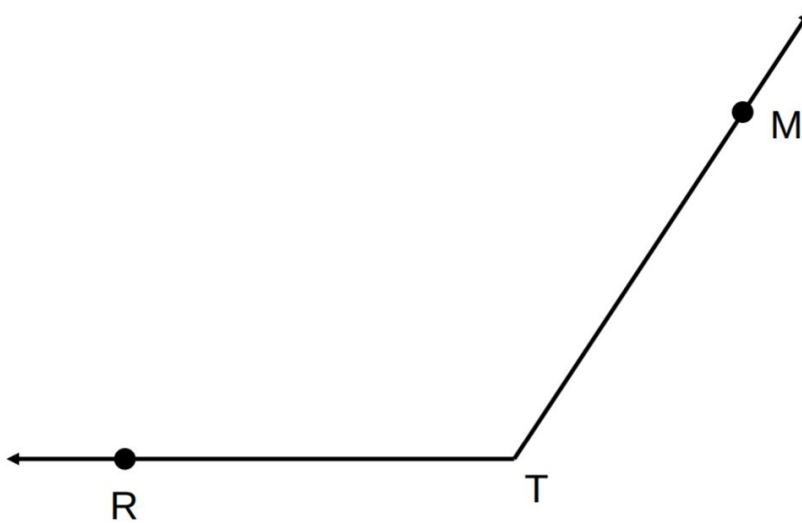


- Name all angles that have B as a vertex
- Name the sides of $\angle 3$
- What is another name for $\angle GHL$?
- Name a point in the interior of $\angle DBK$



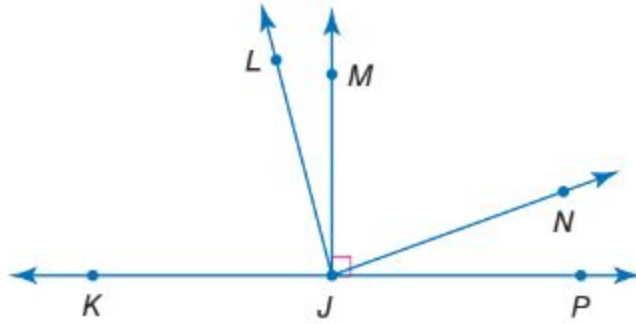
2.

3.

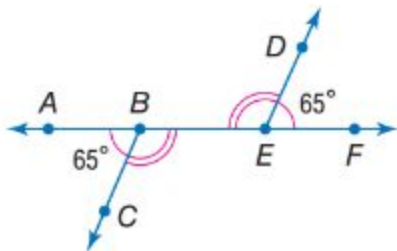


| KeyConcept Classify Angles | | |
|----------------------------|----------------------|----------------------------|
| right angle | acute angle | obtuse angle |
| $m\angle A = 90$ | $m\angle B < 90$ | $180 > m\angle C > 90$ |

4. Take the diagram below and determine whether each of the angles are right, acute, or obtuse. Then measure each of the angles with a protractor.

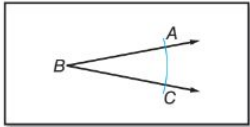


Congruent Angles

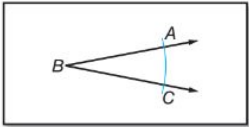


Construction Copy an Angle

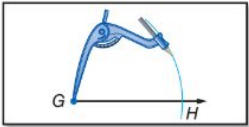
Step 1 Draw an angle like $\angle B$ on your paper. Use a straightedge to draw a ray on your paper. Label its endpoint G .



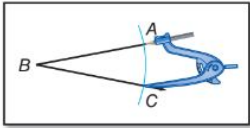
Step 2 Place the tip of the compass at point B and draw a large arc that intersects both sides of $\angle B$. Label the points of intersection A and C .



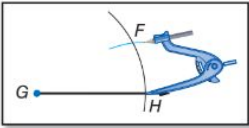
Step 3 Using the same compass setting, put the compass at point G and draw a large arc that starts above the ray and intersects the ray. Label the point of intersection H .



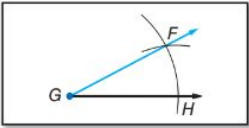
Step 4 Place the point of your compass on C and adjust so that the pencil tip is on A .



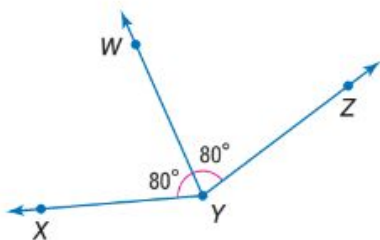
Step 5 Without changing the setting, place the compass at point H and draw an arc to intersect the larger arc you drew in Step 4. Label the point of intersection F .



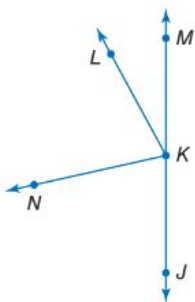
Step 6 Use a straightedge to draw \overrightarrow{GF} .



Angle Bisector:



5. \overrightarrow{KN} bisects $\angle JKL$. If $m\angle JKN = 8x - 13$ and $m\angle NKL = 6x + 11$, find $m\angle JKN$. Solve for x and $m\angle JKN$.



Construction Bisect an Angle

| | | | |
|--|--|---|--|
| <p>Step 1 Draw an angle on your paper. Label the vertex as P. Put your compass at point P and draw a large arc that intersects both sides of $\angle P$. Label the points of intersection Q and R.</p> | <p>Step 2 With the compass at point Q, draw an arc in the interior of the angle.</p> | <p>Step 3 Keeping the same compass setting, place the compass at point R and draw an arc that intersects the arc drawn in Step 2. Label the point of intersection T.</p> | <p>Step 4 Draw \overrightarrow{PT}. \overrightarrow{PT} is the bisector of $\angle P$.</p> |
| | | | |