

**Angles****Introduction to Angles – Part 2****Independent Practice**

1. What is the measure of an angle if its sides are equal rays? Provide an example.

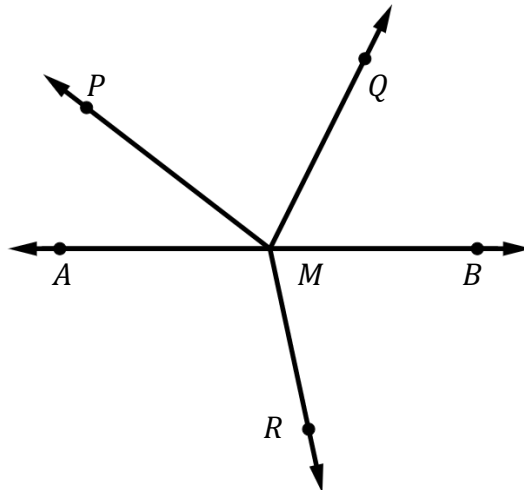
2. Complete the following statement.

If  $k$  is a half-plane determined by  $\overleftrightarrow{QR}$ , then for every real number,  $0 < x \leq 180$ , there

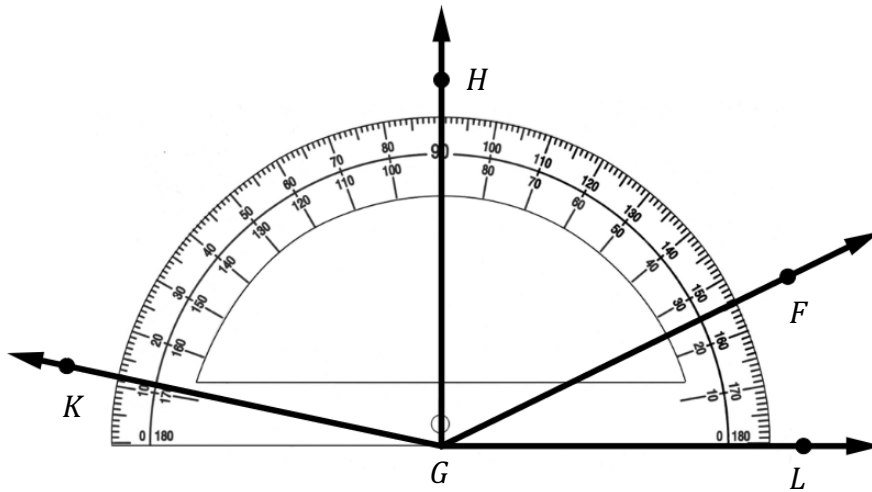
is exactly one ray,  $\overrightarrow{QP}$ , that lies in  $k$  such that  $m\angle PQR =$   .

Justify the validity of this statement.

3. Use a protractor to measure the following angles and classify each angle as obtuse, right, acute, straight, or reflex.



4. Use the figure below to fill in the blanks that define angles  $\angle FGK$ ,  $\angle FGH$ , and  $\angle KGH$  as acute, obtuse, right or straight.



$\angle FGL$  is a(n) \_\_\_\_\_ angle.

$\angle HGF$  is a(n) \_\_\_\_\_ angle.

$\angle KGH$  is a(n) \_\_\_\_\_ angle.

$\angle KGF$  is a(n) \_\_\_\_\_ angle.

$\angle KGL$  is a(n) \_\_\_\_\_ angle.

$\angle HGL$  is a(n) \_\_\_\_\_ angle.

5. If an angle is obtuse, what type of angle is its supplement? Justify your answer.

6. Determine whether or not the complement of an angle can be obtuse. Justify your answer.

7. Construct  $\overline{AB}$  and label midpoint  $P$  on  $\overline{AB}$ . Then, construct  $\overrightarrow{PQ}$ . Use the space provided below.



Part A: What is the measure of  $\angle QPA$ ?

Part B: What is the measure of  $\angle QPB$ ?

Part C:  $\angle QPA$  is

- acute
- obtuse
- right
- straight

and  $\angle QPB$  is

- acute.
- obtuse.
- right.
- straight.

8. Circle the best answer that completes each statement below. Justify your answer under each statement with an example or counter example.

The sum of two acute angles **always | sometimes | never** results in an obtuse angle.

Two obtuse angles are **always | sometimes | never** supplementary.

The sum of two right angles **always | sometimes | never** results in a straight angle.

