Angle Measures: Classwork

1. Tell whether the angles are complementary, supplementary, or neither.

a. $m\angle 1 = 33°$, $m\angle 2 = 57°$

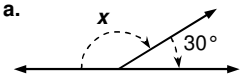
b. $m\angle 1 = 47°$, $m\angle 2 = 133°$

c. $m\angle 1 = 120°$, $m\angle 2 = 70°$

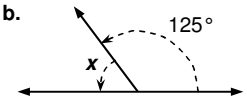
d. $m\angle 1 = 47°$, $m\angle 2 = 43°$

2. Find the measure of the angle labeled *x*.

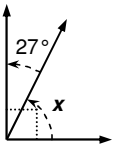
a.



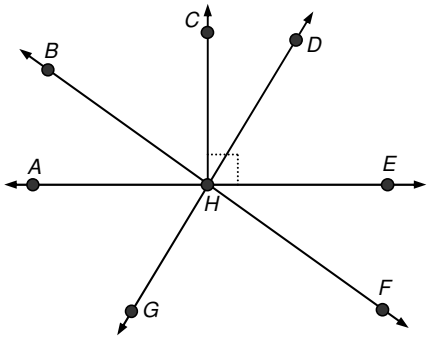
b.



c.



3. In the diagram on the right, $\overleftrightarrow{AE}$, $\overleftrightarrow{BF}$, and $\overleftrightarrow{DG}$ are straight lines. Use the diagram to answer the following.



a. Name an angle complementary to $\angle DHE$

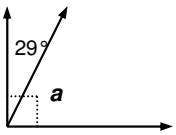
b. Name two different angles supplementary to $\angle DHE$

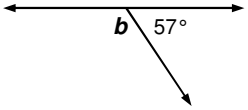
c. Name an angle adjacent to $\angle GHF$

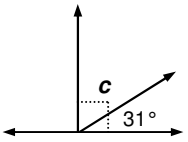
d. Name an angle complementary to $\angle BHC$

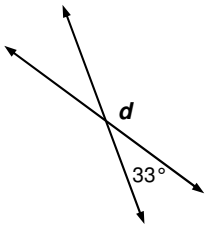
e. Name two different angles supplementary to $\angle FHA$

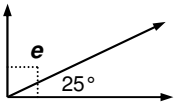
4. Find the measure of each unknown angle.

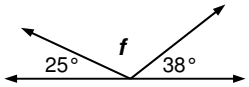


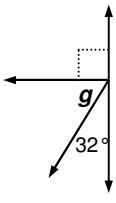


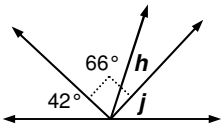


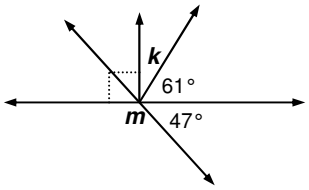




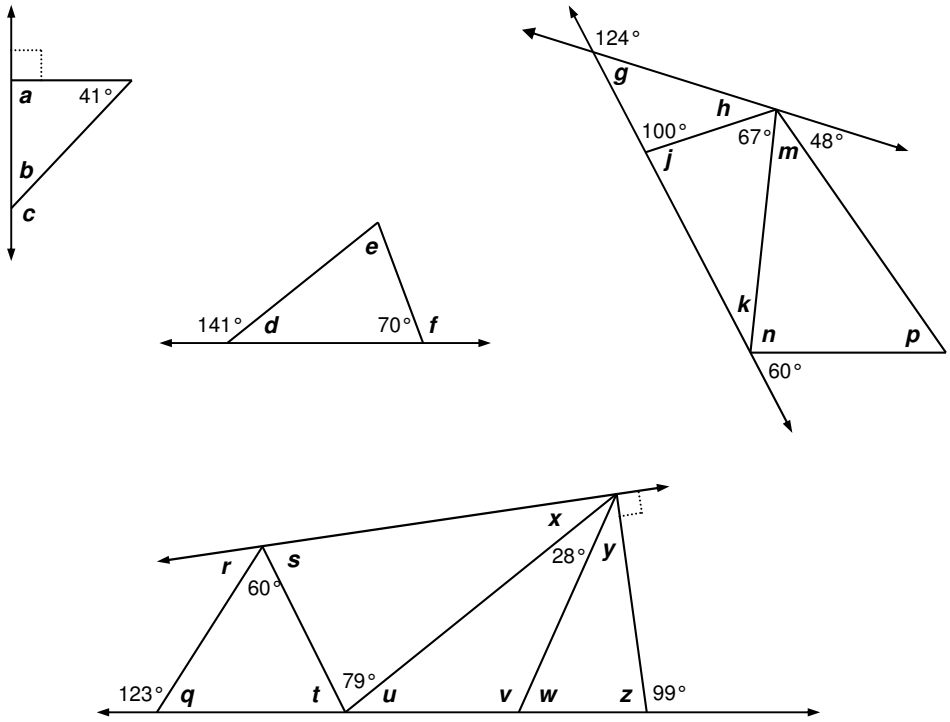








5. Find the measure of each unknown angle.



6. **a.** Show how three lines can intersect at exactly one point.

b. Show how three lines can intersect at no points.

c. Show how three lines can intersect in exactly three points.

d. Show how three lines can intersect in exactly two points.

Angle Measures: Homework

7. Tell whether the angles are complementary, supplementary, or neither.

a. $m\angle 1 = 70°$
$m\angle 2 = 70°$

b. $m\angle 1 = 50°$
$m\angle 2 = 130°$

c. $m\angle 1 = 35°$
$m\angle 2 = 55°$

d. $m\angle 1 = 75°$
$m\angle 2 = 105°$

8. **a.** Sketch a picture of complementary angles, then sketch a counterexample.

b. Sketch a picture of supplementary angles, then sketch a counterexample.

9. Find the measure of each unknown angle.