Assessment : Section C Checkpoint
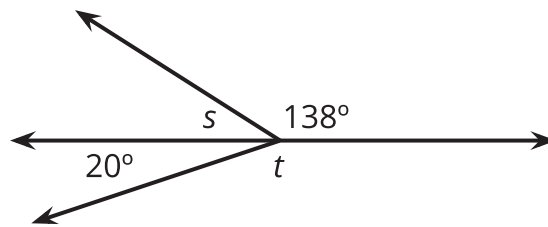
Problem 1

Goals Assessed

- Write equations to represent angle relationships and reason about and find unknown measurements.

Statement

Angle s and the angle that is 138° make a straight angle. What are the measurements of angles s and t? Explain or show your reasoning.

Solution

- Angle s is $42°$. Sample reasoning: Angle s and the $138°$ angle make a straight angle, and $180 - 138 = 42$.
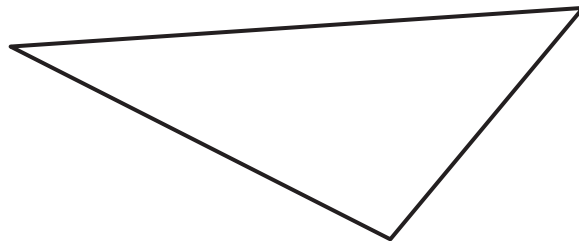- Angle t is $160°$. Sample reasoning: $180 - 20 = 160$

Problem 2

Goals Assessed

- Draw and identify acute, obtuse, right, and straight angles in two-dimensional figures.

Statement

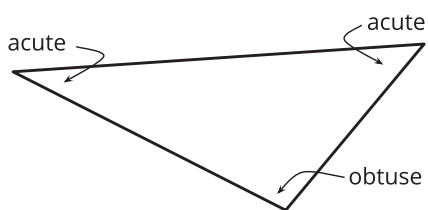1. Decide if each angle in the triangle is acute, right, or obtuse.

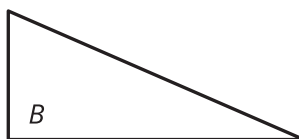2. Draw a triangle with one right angle. Label the right angle B.

Solution
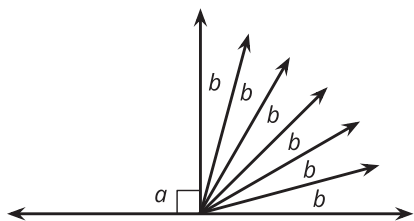
Sample responses:

a.

b.

Problem 3

Goals Assessed

• Recognize that angles can be measured in degrees and can be found using addition and subtraction.

Statement

What are the measurements of angles a and b if all of the angles add up to 180 degrees? Explain or show your reasoning.

Solution

- Angle a is $90°$ because the rays that create the angle are perpendicular.
- Angle b is $15°$ because six of them make a $90°$ angle ($180 - 90 = 90$), so each of them is $90 \div 6$ or 15 degrees.