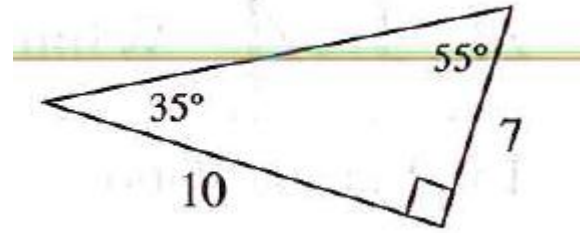


Tangent Ratio Practice WS

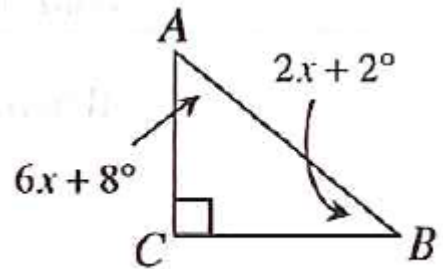
Name: _____ Per: _____

1. Ben thinks that the slope ratio for this triangle is $\frac{7}{10}$. Carlissa thinks the ratio is $\frac{10}{7}$. Who is correct? Explain your thinking fully.



2. An airplane takes off and climbs at an angle of 11° . If the plane must fly over a 120-foot tower with at least 50 feet of clearance, what is the minimum distance between the point where the plane leaves the ground and the base of the tower? (Draw a diagram, and show your work!)
3. A tree on level ground casts a shadow 30 feet long. The angle of elevation from the tip of the shadow to the top of the tree is 70 degrees. Find the height of the tree. (Draw a diagram, and show your work!)

4. Use what you know about the sum of the angles of a triangle to find the following:
- $m\angle ABC =$
 - $m\angle BAC =$
 - Are these angles acute or obtuse?
 - $m\angle ABC + m\angle BAC =$
 - Use the sum of the angles to describe their relationship:



5. Solve for the variables in each problem. Write an equation for each (such as $\tan 14^\circ = \frac{x}{5}$), then solve.

