Pre-Calc. 11 LG 16A QUIZ (Formative Assessment)
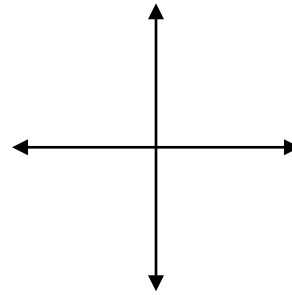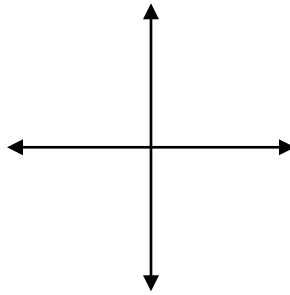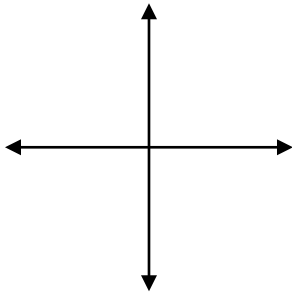
Marking Teacher: _____   **Name:** _____

Student #: _____

1. Draw each angle in standard position, state the reference angle, and determine the quadrant the terminal arm lies in.

   a) 125°   b) 300°   c) 245°

   Ref. ∠ _____   Ref. ∠ _____   Ref. ∠ _____
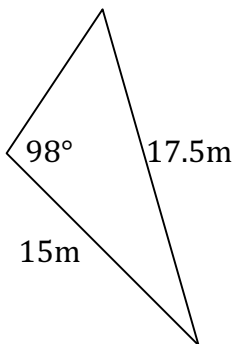   Quad. _____   Quad. _____   Quad. _____

2. For the reference angle 65°, determine three other angles in standard position,   0°<θ<360°.

3. Express the direction S40°E in standard position.
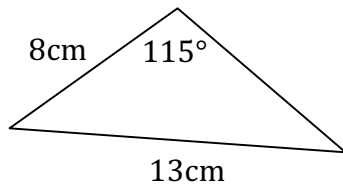
4. Express the direction N20°E in standard position.

For questions **5& 6**, Solve for **all** missing sides and angles in each triangle. Round to the nearest tenth.

5.

98°   17.5m

15m

6.

A triangle with side 8cm, angle 115°, and base 13cm.

7. A 6-m ramp is used for bike jumping. Determine the height of the jump if the angle of the ramp is 60^0.

8. An kite flyer lying on the ground is looking at her kite in the sky with an angle of elevation of 71°. If there is 500 m of kite string and it is taut, what is the height of the kite?

9. Two points M and N are separated by a swamp. A base line MK is established on one side of the swamp. MK is 180 m in length. The measure of angle K is 62° and angle N is 74°. Find the distance between M and N.

10. The science club just launched a rocket straight up in the air. At the instant that the rocket is 90 meters high, what is the angle of elevation from an observer that is 40 meters from the launch pad?

Directions: ☐ **See me about this**   ☐ **Move on to next guide**   ☐ **Review and redo**

Marking Teacher: _____   **Name:** _____

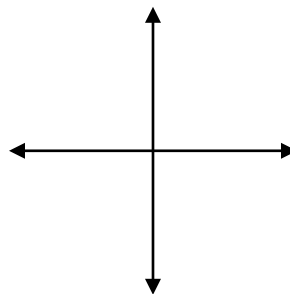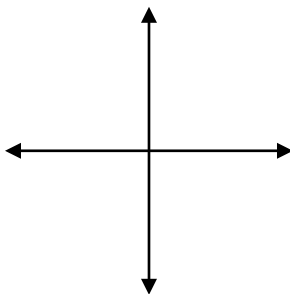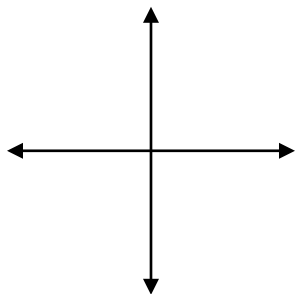   **Student #:**   _____

2. Draw each angle in standard position, state the reference angle, and determine the quadrant the terminal arm lies in.

   a) 85°   b) 330°   c) 215°

   Ref. ∠ _____   Ref. ∠ _____   Ref. ∠ _____
   Quad. _____   Quad. _____   Quad. _____

  2. For the reference angle 25°, determine three other angles in standard position, $0°<\theta<360°$.

3. Give the exact values for each.

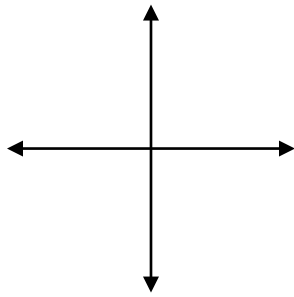   a) Cos 60°   b) Sin 45°

4. A 8-m ramp is used for bike jumping. Determine the exact height of the jump if the   angle of the ramp is 30^0.
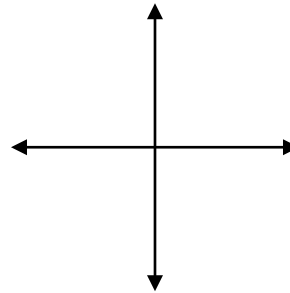

  5. Express the direction N50°E in standard position.

7. Draw an angle in standard position so that the terminal arm passes through each point.   Then write the exact trigonometric ratios for Sin θ, Cos θ, and Tan θ.

a) (-12, -16)   b) (-1, 1)

Sin θ _____   Sin θ _____
Cos θ _____   Cos θ _____
Tan θ _____   Tan θ _____

7. For the description Sin θ > 0 and Cos θ > 0, in which quadrant does the terminal arm   of angle θ lie?

8. Sin 0° = _____   Cos 90° = _____   Tan 180° = _____

The point P (8, k) is 12 units from the origin. If P lies on the terminal arm of an angle, θ, in standard position, 0°<θ<360°, determine the following.

11. The measure of θ.

12. Determine the sine, cosine, and tangent ratio for θ.

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