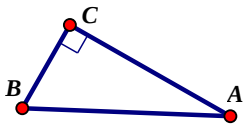
Intro to Geometry Assessment (Review)
Unit Two – G.SRT.6-8 (IC/HW6)

Name: _____
Date: _____ Period: _____

For each multiple choice question, please circle your answer.

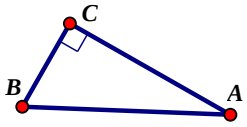
1. The opposite side of ∠A is:

A) $\overline{AB}$ B) $\overline{BC}$ C) $\overline{CA}$ D) Depends



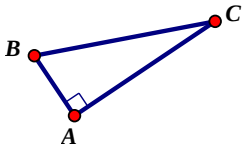
2. If the opposite side is $\overline{AC}$, then the reference angle is :

A) ∠A B) ∠B C) ∠C D) Depends



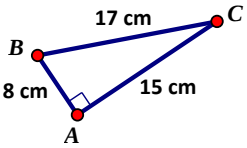
3. Which side is adjacent to ∠C but opposite ∠B?

A) $\overline{AB}$ B) $\overline{BC}$ C) $\overline{CA}$ D) Depends



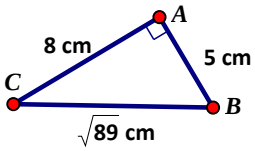
4. If ∠B is the reference angle, then the tangent ratio would be:

A) $\frac{15}{17}$ B) $\frac{8}{15}$ C) $\frac{8}{17}$ D) $\frac{15}{8}$



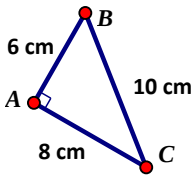
5. If ∠C is the reference angle, then the sine ratio would be:

A) $\frac{8}{\sqrt{89}}$ B) $\frac{5}{\sqrt{89}}$ C) $\frac{8}{5}$ D) $\frac{5}{8}$



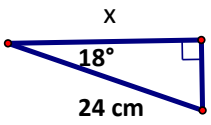
6. The ratio $\frac{6}{8}$ represents which relationship:

A) sin ∠C B) sin ∠B C) tan ∠C D) tan ∠B



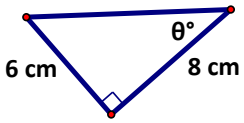
7. The value of x is approximately:

A) 7.42 cm B) 7.80 cm C) 12.00 cm D) 22.83 cm



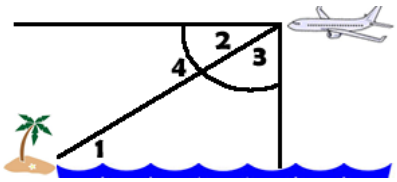
8. The value of Θ is approximately:

A) 36.87° B) 41.40° C) 48.59° D) 53.13°



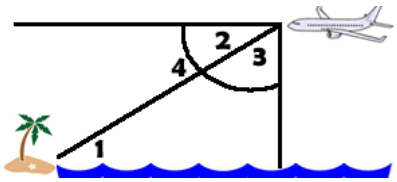
9. The angle of depression from the airplane to the island is:

A) ∠1 B) ∠2 C) ∠3 D) ∠4



10. The angle of elevation from the island to the airplane is:

A) ∠1 B) ∠2 C) ∠3 D) ∠4

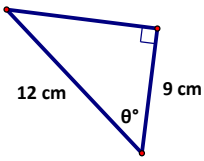


For #11:

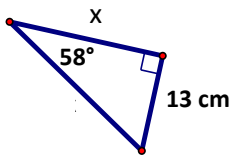
- **Label the triangles with o, a, and h**
- **Determine which trig. ratio to use and write an equation**
- **Solve the equation – show work**
- **Label the answer appropriately**

11. Solve for the missing information. **(Round all final answers to 2 decimals places.)**

a)



b)



Θ = _____

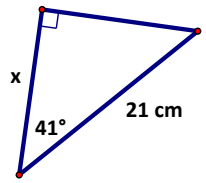
x ≈ _____

For #12:

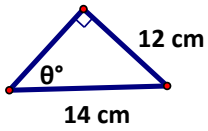
- **Label the triangles with o, a, and h**
- **Determine which trig. ratio to use and write an equation**
- **Solve the equation – show work**
- **Label the answer appropriately**

12. Solve for the missing information. **(Round all final answers to 2 decimals places.)**

a)



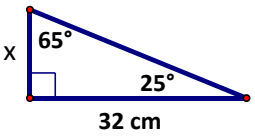
b)



x ≈ _____

Θ = _____

E.C. Solve for the value of x in <u>TWO DIFFERENT WAYS</u>. Show the work for both methods. **Round to 2 decimals.**



Draw a picture, then solve.

13. A 12 meter flagpole casts a 9 meter shadow. Find the angle of elevation of the sun.

14. Ophelia Payne is walking to her office building which she knows is 150 ft. high. The angle to the top of the building from her current location is 6°. How much further does she need to walk to get to work?

15. A submarine dives at an angle of 15° with respect to the water's surface. It travels a horizontal distance of 1500 feet during the dive. What is the depth of the submarine after the dive?

16. A fire department's longest ladder is 110 feet long, and the safety regulation states that they can use it for rescues up to 100 feet off the ground. What is the maximum safe angle of elevation for the rescue ladder?