STATION 1

STATION 1:

**Evaluate the six trigonometric functions of the angle *θ.***

1. 
2. ****

STATION 2:

STATION 2:

**Let *θ* be an acute angle of a right triangle. Find the value of the other five trigonometric functions of *θ.***



STATION 3:

STATION 3:

* + 1. 



* + 1. 

STATION 4:

STATION 4:

**Solve** Δ ***ABC* using the diagram and the given measurements.**



1. *B =* 35°, *c* =10
2. *B* = 48°, *a* = 8
3. *A =* 52°, *b =* 7

STATION 5:

1. **Shadow** A flagpole projects a shadow on the ground that is 26 feet long. The angle of elevation is 30°. What is the approximate height of the flagpole?
2. **Trees** A hiker stands *x* feet from the base of a 24 foot tall tree. The angle of elevation to the top of the tree is 45°. How far is the hiker from the base?

STATION 6:

**15. Mountains** A hiker at the top of a mountain sees a farm and an airport in the distance.

**a.** What is the distance *d* from the hiker to the farm?

**b.** What is the distance *y* from the farm to the airport?

***Lesson 9.1***

**Practice Level A**

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*y*

*x*

1. *x* = 3, *y* = 6

4

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3

4

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

*y*

*x*

1. *A* = 55°, *a* ≈ 8.19, *b* ≈ 5.74
2. *A* = 42°, *b* ≈ 8.88, *c* ≈ 11.96
3. *B* = 38°, *a* ≈ 8.96, *c* ≈ 11.37
4. about 15 ft
5. 24 ft

**15.** a. about 10,313 ft b. about 9640 ft