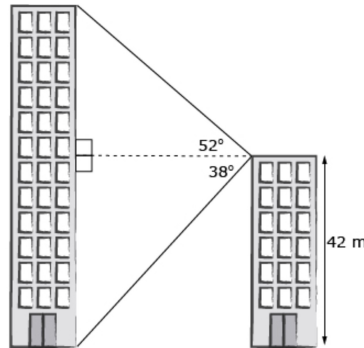
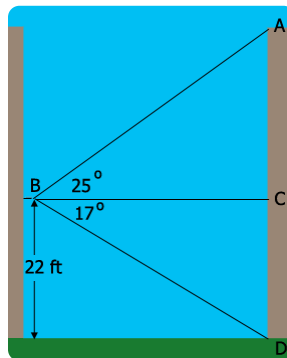


Video Quiz 2

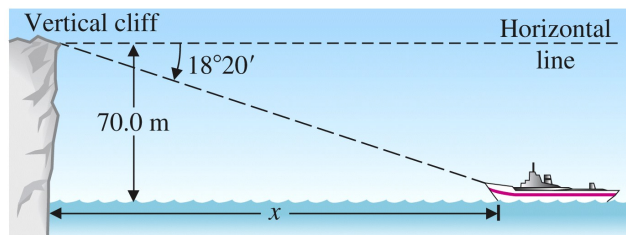
1. (1 pt.) Given the dashed line as the horizontal, the angle of elevation in the following diagram is given by _____ degrees.



2. (1 pt.) Given horizontal \overline{BC} , the angle of depression in the following diagram is given by _____ degrees.



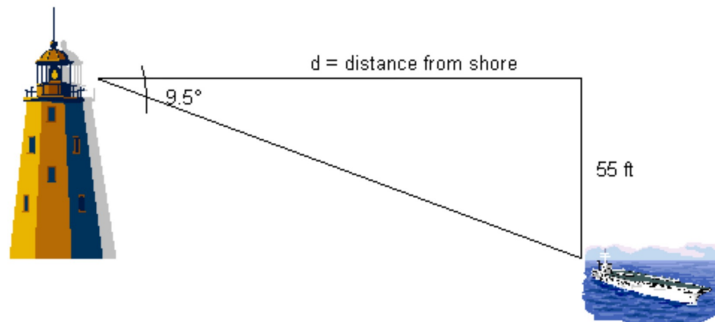
3. (1 pt.) In the following diagram does 18 degrees 20 minutes represent the angle of depression or the angle of elevation?



Exercise 1.4.13
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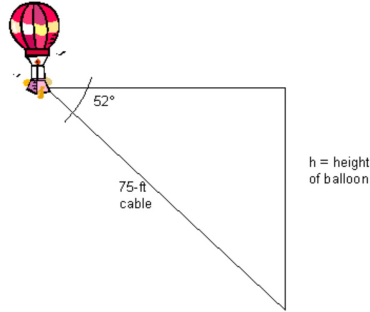
4. (1 pt.) An observer in a 55ft lighthouse spots a ship in distress at an angle of depression of 9.5 degrees. Which trig function below could you use to determine the distance d of the ship from the shore? (Assume the triangle below is right.)

- a. sine
- b. cosine
- c. tangent
- d. none of the above



5. (1 pt.) A hot air balloon is tethered to the ground by a 75-foot cable. As the balloon is inflated, it begins to rise. Due to the wind, the angle of depression from the balloon to the ground is 52 degrees when the cable is pulled tight. Which trig function below could be used to find the height h above the ground the instant the cable is released? (Assume the triangle below is right.)

- a. cosecant
 b. secant
 c. cotangent
 d. none of the above



6. (1 pt.) Given the diagram to the right which of the following statements is false:

- a. $\tan 55^\circ = \frac{y}{x}$
 b. $\cot 55^\circ = \frac{x}{y}$
 c. $\tan 31^\circ = \frac{y}{4.8}$
 d. $\cot 31^\circ = \frac{x + 4.8}{y}$

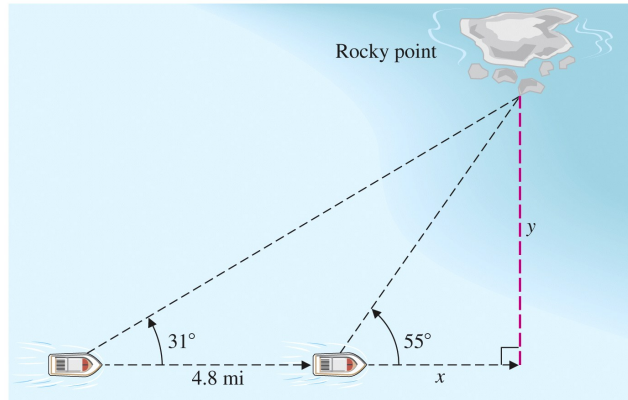
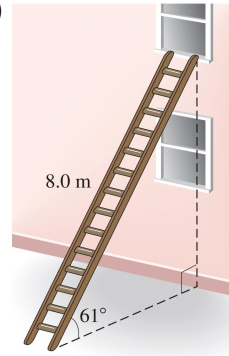


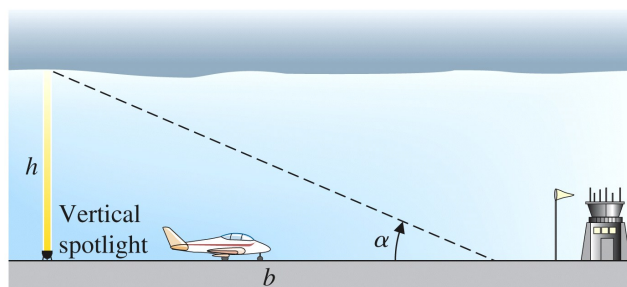
Figure 1.4.5
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7. (2 pts.) A ladder 8.0m long is placed against a building. The angle of elevation between the ladder and the ground is 61 degrees. How high will the top of the ladder reach up the building? (Round your answer to the nearest meter, i.e. 3.78m rounds to 4m.)



Exercise 1.4.1
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8. (2 pts.) The height of a cloud of fog cover over an airport can be measured as indicated in the figure. Find h if $b = 1.2$ km and $\alpha = 23^\circ$. (Round your answer to the nearest decimal place, i.e. 5.6781 km rounds to 5.7 km.)



Exercise 1.4.18
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