Name _____ Date _____

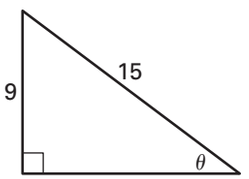
LESSON 13.1

Practice

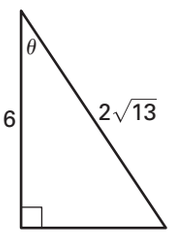
For use with pages 852–858

Evaluate the six trigonometric functions of the angle θ.

1.



2.



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

3. $\sin \theta = \frac{4}{5}$

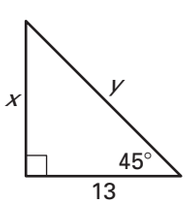
4. $\cos \theta = \frac{5}{6}$

5. $\sec \theta = \frac{\sqrt{73}}{8}$

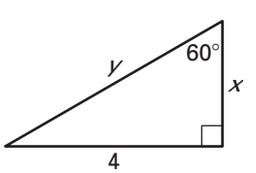
6. $\cot \theta = \sqrt{3}$

Find the exact values of *x* and *y*.

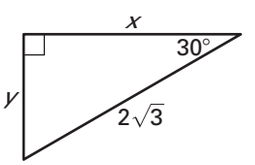
7.



8.



9.



Name _____ Date _____

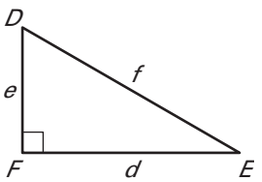
LESSON 13.1

Practice *continued*

For use with pages 852–858

Solve $\triangle DEF$ using the diagram and the given measurements.

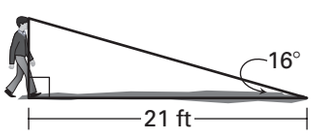
10. $D = 40°, f = 8$



11. $E = 53°, d = 13$

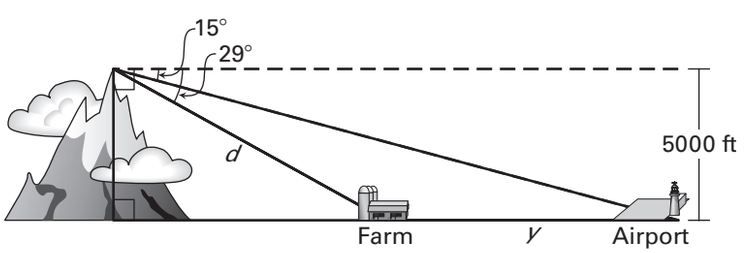
12. $D = 67°, e = 10.5$

13. Shadow A person casts the shadow shown. What is the approximate height of the person?



14. 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?