

Find the sine, cosine, and tangent ratios of angle E.

1)

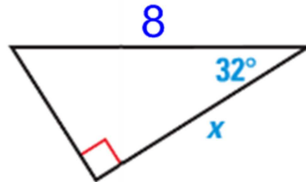


Use a trig ratio to find the value of x.

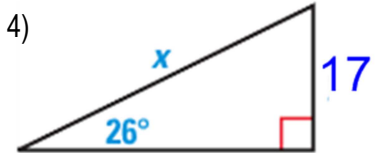
2)



3)

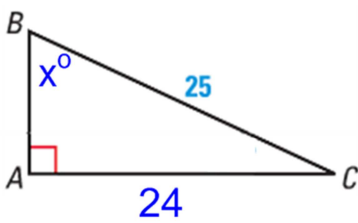


4)

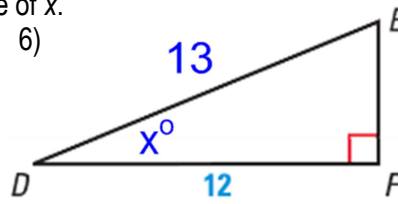


Use an inverse trig ratio to find the value of x.

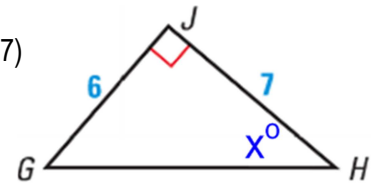
5)



6)

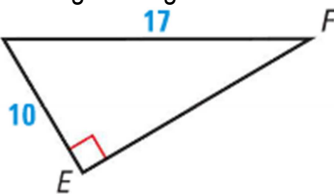


7)

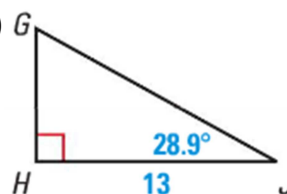


Solve the right triangle.

8)



9)



- 10) A lift chair at a ski resort has an angle of elevation of 28° and covers a total distance of 4640 feet. What is the vertical distance covered by the lift chair? **DRAW A PICTURE!**
- 11) You are preparing to land an airplane. Your straight line approach has an angle of depression of 3° . What is the straight line distance to the runway when the plane is at an altitude of 500 feet? **DRAW A PICTURE!**
- 12) You are launching a model rocket and want to figure out how it goes in the air. You stand 100 feet from the launching pad and measure that the angle of elevation to its highest point is 77° . How high was the rocket at its highest point? **DRAW A PICTURE!**
- 13) Federal regulations state that a wheelchair ramp must have an angle of elevation of 4.78° or less. The ramp is front of an office building is 16 feet long and has a vertical rise of 14 inches. Does this ramp meet the federal standard? **DRAW A PICTURE!**
- 14) You are in a hot air balloon that is 600 feet in the air looking down at a friend that is taking your picture. Your friend is 1000 feet from a point directly under the balloon, what is the angle of depression from you to your friend? **DRAW A PICTURE!**