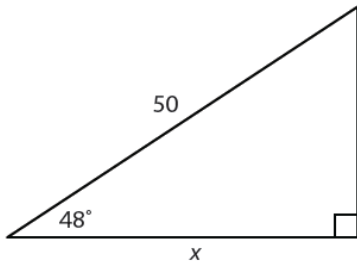


Name: _____ period: _____

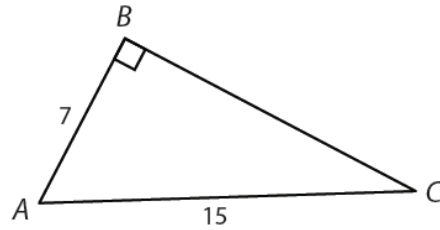
MATH 2 HONORS

Assignment: Applying Trigonometric Ratios

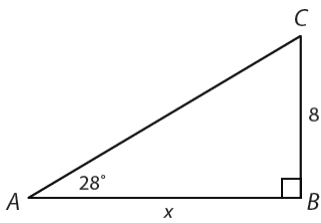
1. Find the value of x :



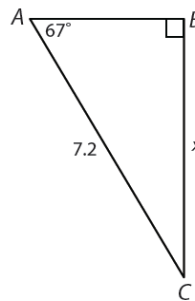
2. Find $\angle A$ and $\angle C$:



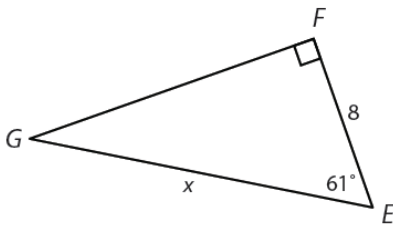
3. Find the value of x :



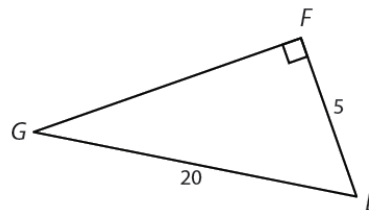
4. Find the value of x :



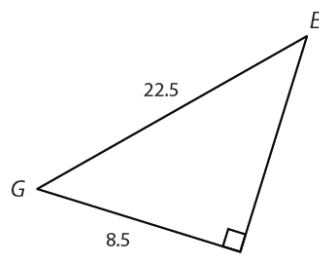
5. Find the value of x :



6. Find the measure of $\angle E$:



7. Find the measure of $\angle E$:



8. The height of a tree is 15 meters. To the nearest whole degree, what is the angle of elevation of the sun when the tree casts a shadow that is 9.3 meters long on ground level?

9. A meteorologist reads radio signals to get information from a weather balloon. The last alert indicated that the angle of depression of the weather balloon to the meteorologist was 41° and the balloon was 1810 meters away from his location on the diagonal. To the nearest meter, how high above the ground was the balloon?

10. A boy flies a kite with a 100-foot-long string. The angle of elevation of the string is 48° . How high is the kite from the ground?

11. A 14-foot ladder is being used to get to the top of a 12-foot-tall wall. At what angle of elevation must the ladder be positioned in order to reach the top of the wall?

12. A mother gazes out a second-floor window at her son playing at the playground. If the mother's eye level is 12.6 meters off of level ground and the playground is 20 meters from the base of the building, what is the angle of depression from the mother's line of sight to the playground?