

Name _____

Trig Word Problems Worksheet

1. A boy flying a kite lets out 100m of string which makes an angle of 38° with the ground. Assuming that the string is straight, how high above the ground is the kite?
2. A ladder leaning against the wall makes an angle of 74° with the ground. If the foot of the ladder is 2.2m from the wall, how high on the wall is the ladder?
3. Carl walked 4 m west and 5 m south. Calculate how far he is from his starting point?
4. A straight road to the top of a hill is 850m long and makes an angle of 12° with the horizontal. Find the height of the hill.
5. Martha's house is 20 m long and 18 m wide. How long is the diagonal of the house?
6. An airplane climbs at an angle of 11° with the ground. Find the ground distance it has traveled when it has attained an altitude of 130 metres.
7. A wire attached to the top of a pole reaches a stake in the ground 7 metres from the foot of the pole and makes an angle of 58° with the ground. Find the length of the wire.
8. Henry is flying a kite. The kite string makes an angle of 43° with the ground. If Henry is standing 32m from a point on the ground directly below the kite, find the length of the kite string.
9. A ladder is standing on horizontal ground and rests against a vertical wall. The ladder is 5.5 m long and its foot is 3 m from the wall. Calculate how far up the wall the ladder will reach. Give your answer correct to 2 decimal places.
10. A 8 metre ladder leans against a building. The ladder's base is 4 metres from the building. Find the angle which the ladder makes with the ground.
11. In order to reach the top of a hill which is 85 metres high, one must travel 830 metres straight up a road which leads to the top. Find the number of degrees contained in the angle which the road makes with the horizontal.
12. A ladder leans against a building. The top of the ladder reaches a point on the building which is 6 metres above the ground. The foot of the ladder is 2.2 metres from the building. Find the measure of the angle which the ladder makes with the level ground.
13. Town A is 65 km due north of town B. Town C is 44 km due east of town B. Calculate the distance from town A to town C. Give your answer correct to 2 decimal places.