

Review Day Trigonometry Math II

1. Find the angle of elevation if you are standing 400 feet away from an 850 ft. tall building.
2. From the top of an electrical tower, the angle of depression to a stake on the ground is 60 degrees. The tower stands 80 feet above the ground. How far is the stake from the foot of the tower?
3. A ladder leaning against a house makes an angle of 30 degrees with the ground. The foot of the ladder is 7 feet from the foot of the house. How long is the ladder?
4. You are a block away from a skyscraper that is 780 feet tall. Your friend is between the skyscraper and yourself. The angle of elevation from your position to the top of the skyscraper is 42 degrees. The angle of elevation from your friend's position to the top of the skyscraper is 71 degrees. To the nearest foot, how far are you from your friend?
5. You are in a hot air balloon that is 600 feet above the ground. You see your friend on the ground at an angle of depression of 20 degrees. How far is your friend from the point of the ground directly below the hot air balloon?
6. A tree casts a shadow 21 meters long. The angle of elevation of the sun is 51 degrees. What is the height of the tree?
7. You are flying a kite and have let out 80 meters of string. The kite's angle of elevation with the ground is 40 degrees. If the string is stretched straight, how high is the kite above the ground?