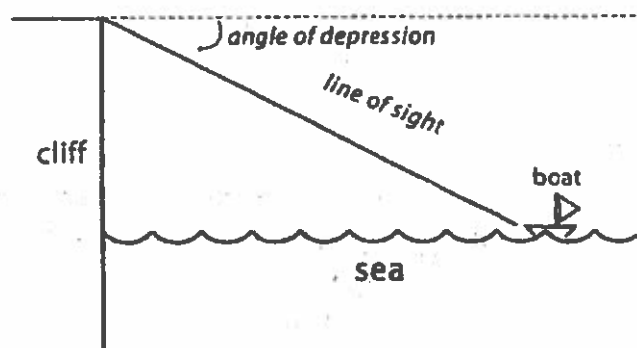


Practice / Homework

1. A tree casts a 60 foot shadow. The angle of elevation is 30° . This is the angle at which you look up to the top of the tree from the ground. What is the height of the tree?
2. An observer is 120 feet from the base of a television tower which is 150 feet tall. Find, to the *nearest degree*, the angle of elevation of the top of the tower from the point where the observer is standing.
3. From the top of a vertical cliff which is 40 meters high, the angle of depression of an object that is level with the base of the cliff is 34° . How far is the object from the base of the cliff, to the *nearest meter*?
4. From the top of a cliff which is 450 feet above sea level, the angle of depression of a boat out at sea is 24 degrees. Find, to the *nearest foot*, the distance from the top of the cliff to the boat.

5. From a 200 feet high cliff a boat is noticed floundering at sea! The boat is approximately 300 yards from the base of the cliff. What is the angle of depression, to the *nearest degree*, of the line of sight to the boat?



Practice / Homework

1. The taut string of a kite makes an angle with the ground of 60 degrees. The length of the string is 400 feet. What is the height of the kite, to the *nearest tenth*?

2. A ladder, 500 cm long, leans against a building. If the angle between the ground and the ladder is 57 degrees, how far from the wall is the bottom of the ladder? Round the answer to the *nearest tenth*.
3. A kite is flying 115 ft above the ground. The length of the string to the kite is 150 ft, measured from the ground. Find the angle, to the *nearest degree*, that the string makes with the ground.
4. An observation tower is 75 m high. A support wire is attached to the tower 20 m from the top. If the support wire and the ground form an angle of 46 degrees, what is the length of the support wire, to the *nearest tenth*.
5. At a point 30 feet from the base of a tree, the angle formed with the ground looking to the top measures 53° . Find, to the *nearest foot*, the height of the tree.