

Class 10 Mathematics - Some Applications of Trigonometry

Name: _____

Date: _____

Advanced Worksheet 1

Questions

1. A 1.5 m tall observer is standing 28.5 m away from a chimney. The angle of elevation of the top of the chimney from the observer's eye is 45° . Find the height of the chimney.
2. A tower stands on level ground. From a point 30 m away from its foot, the angle of elevation of its top is 60° . Find the height of the tower.
3. A building is 20 m high. The angle of elevation of its top from a point on the ground is 30° . Find the distance of the point from the building.
4. A kite is flying at a height of 80 m above the ground. If the angle of elevation of the kite is 60° , find the length of the string.
5. A tree casts a shadow of 12 m. If the angle of elevation of the Sun is 60° , find the height of the tree.
6. A ladder is placed against a wall at an angle of 60° with the ground. If the foot of the ladder is 5 m from the wall, find the length of the ladder.

Answer Key

1. 30 m
2. $30\sqrt{3}$ m
3. $20\sqrt{3}$ m
4. $160/\sqrt{3}$ m
5. $12\sqrt{3}$ m
6. 10 m

