

Class 10 Mathematics - Some Applications of Trigonometry

Name: _____

Date: _____

Medium Worksheet 4

Questions

1. The angle of elevation of the top of a tower from a point on the ground is 30° . If the point is 40 m away from the tower, find the height of the tower.
2. A 1.5 m tall observer is standing 20 m away from a building. If the angle of elevation of the top of the building is 45° , find the height of the building.
3. A ladder reaches a height of $6\sqrt{3}$ m on a wall and makes an angle of 60° with the ground. Find the distance of the foot of the ladder from the wall.
4. The shadow of a tower is 30 m long. If the angle of elevation of the Sun is 45° , find the height of the tower.
5. A tree is 15 m high. Find the length of its shadow when the angle of elevation of the Sun is 60° .
6. From a point 12 m away from a pole, the angle of elevation of its top is 30° . Find the height of the pole.

Answer Key

1. $40/\sqrt{3}$ m
2. 21.5 m
3. 6 m
4. 30 m
5. $5\sqrt{3}$ m
6. $4\sqrt{3}$ m

