

Class 10 Mathematics - Some Applications of Trigonometry

Name: _____

Date: _____

Medium Worksheet 3

Questions

1. A 20 m long rope is tied from the top of a pole to the ground and makes an angle of 30° with the ground. Find the height of the pole.
2. A building is 10 m high. A flagstaff is fixed at the top. The angle of elevation of the top of the building is 30° and that of the top of the flagstaff is 45° . Find the length of the flagstaff.
3. From a point 25 m away from a tower, the angle of elevation of its top is 45° . Find the height of the tower.
4. A tree casts a shadow 15 m long. If the angle of elevation of the Sun is 60° , find the height of the tree.
5. From a point on the ground, the angle of elevation of the top of a building is 60° . If the building is 30 m high, find the distance of the observer from the building.
6. Find the height of a pole if the angle of elevation of its top from a point 8 m away is 45° .

Answer Key

1. 10 m
2. 7.32 m

3. 25 m
4. $15\sqrt{3}$ m
5. $10\sqrt{3}$ m
6. 8 m

