

Chapter 9 – Some Applications of Trigonometry

MM 20

Class X

Time 1h

1 Mark Each

1. Line of sight is _____
2. Angle of elevation is _____
3. Angle of depression is _____

2 Marks Each

4. The shadow of a tower is $\sqrt{3}$ times the height of tower. Find the angle of elevation of sun.

3 Marks Each

5. A tower stands vertically on the ground. From a point on the ground, which is 15m away from the foot of the tower, the angle of elevation of the top of the tower is found to be 30° . Find the height of the tower.

6 Marks Each

6. At the foot of a mountain the elevation of its summit is 45° , after ascending 2km towards the top of mountain at a slope of 30° inclination, the elevation is found to be 60° . Find the height of the mountain.
7. At a point on level ground, the angle of elevation of a vertical tower is found to be such that its tangent is $\frac{5}{12}$. On walking 192 metres towards the tower, the tangent of the angle of elevation is $\frac{3}{4}$. Find the height of the tower.

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