Class 10 Maths Chapter 9 Some Applications of Trigonometry MCQs For Practice

1. A tower stands vertically on the ground. From a point on the ground, which is 15 m away from the foot of the tower, the angle of elevation of the top of the tower is found to be 60°. The height of the tower is
(a) 15√3 m
(b) 12√3 m
(c) 15/√3 m
(d) 5√3 m

2. An observer 1.5 m tall is 20.5 m away from a tower 22 m high. The angle of elevation of the top of the tower from the eye of the observer is
(a) 30°
(b) 60°
(c) 45°
(d) 15°

3. The angle of elevation of the top of a 18 m high tower at a point 18 m away from the base of tower is
(a) 30°
(b) 60°
(c) 15°
(d) 45°

4. At some time of the day, the length of the shadow of a building is equal to its height. Then, the Sun's altitude at that time is equal to
(a) 30°
(b) 45°
(c) 60°
(d) 75°

5. If at some time, the length of the shadow of a tower is 1/√3 times its height, then the angle of elevation of the Sun, at that time is
(a) 15°
(b) 30°
(c) 45°
(d) 60°

6. A man standing at a height 6 m observes the top of a tower and the foot of tower at angles of 45° and 30° of elevation and depression respectively. The height of tower is
(a) 6√3 m
(b) 12 m
(c) 6(√3 – 1)
(d) 6(√3 + 1) m

7. Two poles are 25 m and 15 m high and the line joining their tops makes an angle of 45° with the horizontal. The distance between these poles is
(a) 5 m

(b) 10 m
(c) 15 m
(d) 12 m

8. If the angles of elevation of the top of a tower from two points at the distance of 9 m and 4 m from the base of tower and in the same straight line with it are complementary, then the height of the tower (in m) is
(a) 8
(b) 7
(c) 6
(d) 10

9. A 1.6 m tall girl stands at a distance of 3.2 m from a lamp post and casts a shadow of 4.8 m on the ground. The height of the lamp post is
(a) 8/3 m
(b) 4.5 m
(d) 2.4 m
(d) 10/3 m

10. An observer 1.5 m tall is 28.5 m away from a chimney. The angle of elevation of the top of the chimney from her eyes is 45°. The height of the chimney is
(a) 15 m
(b) 30 m
(c) 25 m
(d) 40 m

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1 - (a)	2 - (c)	3 - (d)	4 - (b)	5 - (d)
6 - (d)	7 - (b)	8 - (c)	9 - (a)	10 - (b)