



Class 10 Mathematics | Some Applications Of Trigonometry

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. A tower casts a 10 m shadow when sun elevation is 45° . Its height is:

A. $10\sqrt{3}$ m B. 10 m C. 5 m D. 20 m

2. A 12 m pole is viewed at elevation 30° from ground. Horizontal distance is:

A. $4\sqrt{3}$ m B. 6 m C. 12 m D. $12\sqrt{3}$ m

3. A tower is 20 m away horizontally and its top has elevation 60° . Height is:

A. 40 m B. $20\sqrt{3}$ m C. $20/\sqrt{3}$ m D. $10\sqrt{3}$ m

4. A 10 m ladder makes 60° with level ground. Height reached is:

A. $10\sqrt{3}$ m B. 5 m C. 10 m D. $5\sqrt{3}$ m

5. A 13 m ladder touches a wall 12 m high. Its foot is from the wall by:

A. 1 m B. 25 m C. 5 m D. $\sqrt{313}$ m

6. The angle of depression from a roof to a car equals the car's angle of:

A. inclination to vertical
B. elevation to the roof
C. depression to the roof
D. reflection

7. A kite's taut string is 40 m long and makes 30° with ground. Height above its ground anchor is:

A. 40 m B. $20\sqrt{3}$ m C. 20 m D. $40\sqrt{3}$ m

8. A 30 m tower has elevation 45° from a ground point. Distance from its base is:

A. 60 m B. 30 m C. $30\sqrt{3}$ m D. 15 m

9. From a point 15 m from a building, elevation is 60° . Moving farther away makes elevation:

A. smaller B. unchanged
C. always 90° D. larger

10. A 6 m pole casts a $6\sqrt{3}$ m shadow. Sun elevation is:

A. 30° B. 60° C. 90° D. 45°

11. A person with eye level 1.6 m sees a building top at 45° from 20 m away. Building height is:

A. 40 m B. 18.4 m C. 20 m D. 21.6 m

12. A tower has height $10\sqrt{3}$ m and its top is viewed at 60° . Horizontal distance is:

A. 30 m B. 20 m C. 10 m D. $10\sqrt{3}$ m

13. From a roof 15 m high, a ground point has depression 45° . Horizontal distance is:

A. 30 m B. $5\sqrt{3}$ m C. $15\sqrt{3}$ m D. 15 m

14. A vertical pole is h m high. At horizontal distance $h\sqrt{3}$ m, elevation is:

A. 30° B. 45° C. 15° D. 60°

15. From a 20 m tower, a car on level ground has depression 30° . Car-to-top distance is:

A. $20\sqrt{3}$ m B. $40\sqrt{3}$ m C. 10 m D. 40 m

ANSWER KEY — check after completing all 15 questions

1.B 2.D 3.B 4.D 5.C 6.B 7.C 8.B 9.A 10.A 11.D 12.C 13.D 14.A 15.D

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper