

KENDRIYA VIDYALAYA GILL NAGAR CHENNAI**CLASS X MATHEMATICS****WINTER BREAK ASSIGNMENT****QUADRATIC EQUATIONS****APPLICATIONS OF TRIGONOMETRY**

1. A pole of 15 m long cast a shadow of 15 m on the ground. Find the elevation of the sun?(1 Mark)
2. The angle of depression of a car on the road as observed from the top of a tower of 50 m high is 60° . Find the distance between the foot of the tower and the car. ((2 Marks).
3. Two poles of equal height are standing on either side of a road of 80 m wide. From a point in between the poles on the road the angles of elevation of the poles are 30° and 60° respectively. Find the height of the poles and the distance of the poles from the point.(4marks)
4. The angle of elevation of the top of a tower on the ground is 45° . After moving 50 m towards the foot of the tower the angle of elevation is found to be 60° . Find the height of the tower. (4marks)
5. From the top of a 7 m high building the angle of elevation of the top of a cable tower is 60° and the angle of depression of the foot is 45° . Determine the height of the tower. (4marks)

CO ORDINATE GEOMETRY

1. Find the distance of the point (5,-3) from the origin.(1 mark)
2. Find the value p such that the points (-1,3),(2,p) and (5,-1) are collinear. (2 marks)
3. Find the point on the X axis which is equidistant from the points (-2,5) and (2,-3). (2 marks)
4. Find the type of triangle formed by the with vertices (3,2,) (-2,-3) and (2,3).(3 Marks)
5. Find a relation between x and y such that P(x,y) is equidistant from the point (3,6) and (-3,4).
(3 Marks)