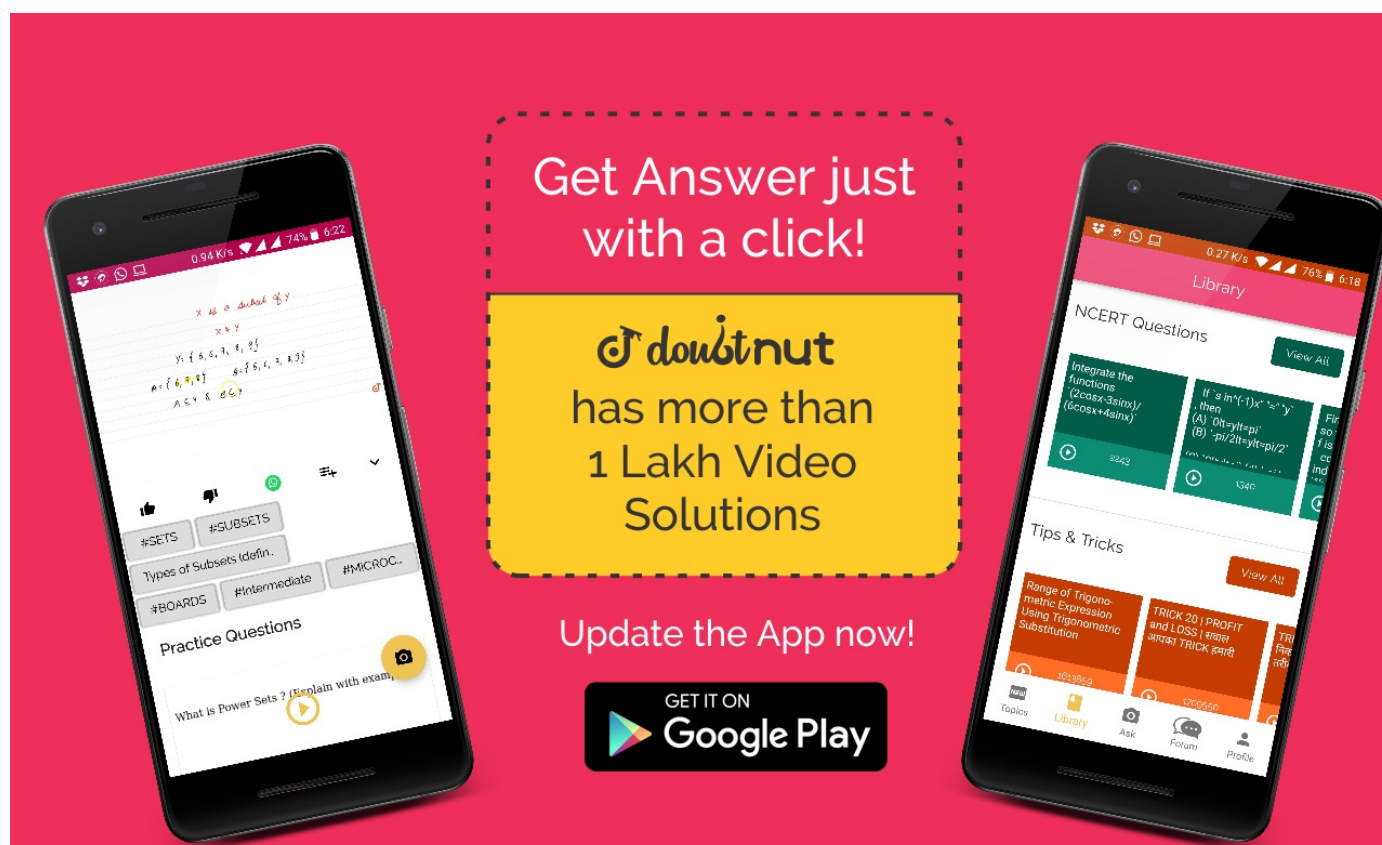


Ques No.	Question
1	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 1</b></p> <p>A circus artist is climbing a 20 m long rope, which is tightly stretched and tied from the top of a vertical pole to the ground. Find the height of the pole, if the angle made by the rope with the ground level is <math>30^\circ</math></p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
2	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 2</b></p> <p>A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle <math>30^\circ</math> with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
3	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 3</b></p> <p>A contractor plans to install two slides for the children to play in a park. For the children below the age of 5 years, she prefers to have a slide whose top is at a height of 1.5 m, and is inclined at an angle of <math>30^\circ</math> to the ground, whereas for</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
4	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 4</b></p> <p>The angle of elevation of the top of a tower from a point on the ground, which is 30m away from the foot of the tower, is <math>30^\circ</math>. Find the height of the tower.</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
5	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 5</b></p> <p>A kite is flying at a height of 60 m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is <math>60^\circ</math>. Find the length of the string, assuming that there is no slack in the string.</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>



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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 6**

A 1.5 m tall boy is standing at some distance from a 30 m tall building. The angle of elevation from his eyes to the top of the building increases from  $30^\circ$  to  $60^\circ$  as he walks towards the building. Find the distance he walked towards the building.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 7**

From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower fixed at the top of a 20 m high building are  $45^\circ$  and  $60^\circ$  respectively. Find the height of the tower.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 8**

A statue, 1.6 m tall, stands on the top of a pedestal. From a point on the ground, the angle of elevation of the top of the statue is  $60^\circ$  and from the same point the angle of elevation of the top of the pedestal is  $45^\circ$ . Find the height of

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 9**

The angle of elevation of the top of a building from the foot of the tower is  $30^\circ$  and the

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angle of elevation of the top of the tower from the foot of the building is  $60^\circ$ . If the tower is 50 m high, find the height of the building.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 10**

Two poles of equal heights are standing opposite each other on either side of the road, which is 80 m wide. From a point between them on the road, the angles of elevation of the top of the poles are  $60^\circ$  and  $30^\circ$ , respectively. Find the height of the poles.

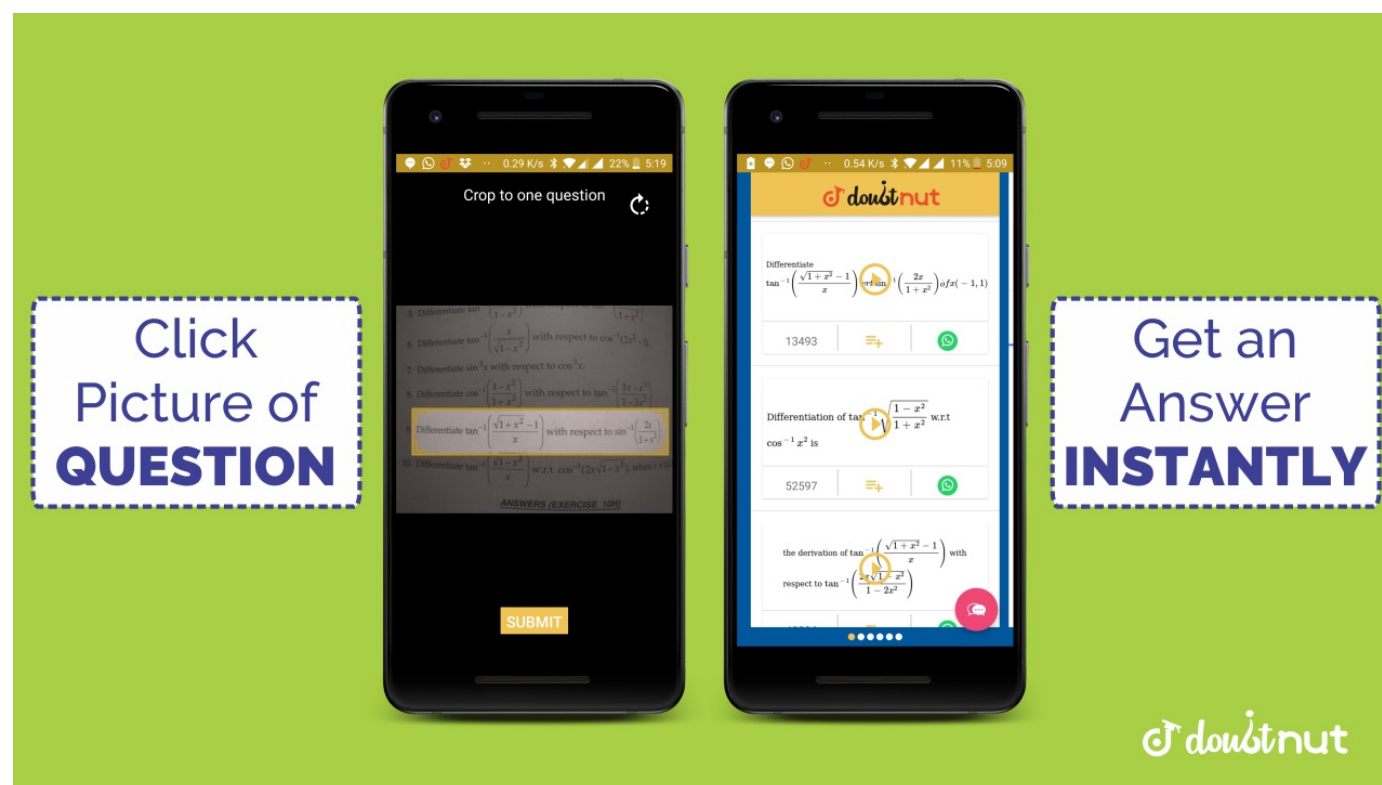
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11

**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 11**

A TV tower stands vertically on a bank of a canal. From a point on the other bank directly opposite the tower, the angle of elevation of the top of the tower is  $60^\circ$ . From another point 20 m away from this point on the line joining this point to the tower, the angle of elevation of the top of the tower is  $30^\circ$ . Find the height of the tower.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 12**

From the top of a 7 m high building, the angle of elevation of the top of a cable tower is  $60^\circ$  and the angle of depression of its foot is  $45^\circ$ . Determine the height of the tower.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 13**

As observed from the top of a 75 m high lighthouse from the sea-level, the angles of depression of two ships are  $30^\circ$  and  $45^\circ$ . If one ship is exactly behind the other on the same side of the lighthouse, find the distance between the two ships.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 14**

A 1.2 m tall girl spots a balloon moving with the wind in a horizontal line at a height of 88.2 m from the ground. The angle of elevation of the balloon from the eyes of the girl at any instant is  $60^\circ$ . After some time, the angle of elevatio

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 15**

A straight highway leads to the foot of a tower. A man standing at the top of the tower observes a car at an angle of depression of  $30^\circ$ , which is approaching the foot of the tower with a uniform speed. Six seconds later, the angle of depression of the car is found to be  $60^\circ$ . Find the time taken by the car to reach the foot of the tower from this point.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - EXERCISE 9.1 - Q 16**

The angles of elevation of the top of a tower from two points at a distance of 4 m and 9 m from the base of the tower and in the same straight line with it are complementary. Prove that the height of the tower is 6 m.

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**NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 1**

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  $60^\circ$ . Find the height of the tower.

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18	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 2</b></p> <p>An electrician has to repair an electric fault on a pole of height 5 m. She needs to reach a point 1.3m below the top of the pole to undertake the repair work. What should be the length of the ladder that she should use which, when inclined at</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
19	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 3</b></p> <p>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 <math>45^\circ</math>. What is the height of the chimney?</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
20	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 4</b></p> <p>From a point P on the ground the angle of elevation of the top of a 10 m tall building is <math>30^\circ</math>. A flag is hoisted at the top of the building and the angle of elevation of the top of the flagstaff from P is <math>45^\circ</math>. Find the length of the flagstaff</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
21	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 5</b></p> <p>The shadow of a tower standing on a level ground is found to be 40 m longer when the Sun's altitude is <math>30^\circ</math> than when it is <math>60^\circ</math>. Find the height of the tower.</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
22	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 6</b></p> <p>The angles of depression of the top and the bottom of an 8 m tall building from the top of a multi-storeyed building are <math>30^\circ</math> and <math>45^\circ</math>, respectively. Find the height of the multi-storeyed building and the distance between the two buildings.</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>
23	<p><b>NCERT - CLASS 10 - CHAPTER 9 SOME APPLICATIONS OF TRIGONOMETRY - SOLVED EXAMPLES - Q 7</b></p> <p>From a point on a bridge across a river, the angles of depression of the banks on opposite sides of the river are <math>30^\circ</math> and <math>45^\circ</math>, respectively. If the bridge is at a height of 3 m from the banks, find the width of the river.</p> <p><a href="#">▶ Watch Free Video Solution on Doubtnut</a></p>

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