EMMANUEL MISSION SR SEC SCHOOL, BEAWAR

ONLINE CLASSES
(02.10.2020)

****

CLASS - IX (Day 62)

English: https://youtu.be/yYITY9YaDVI

Hindi: https://youtu.be/wGn3LT4EiVE

Mathematics: https://youtu.be/ig4rnGlbZXA

Science: https://youtu.be/SSD01oW-0Xw

Social Studies: https://youtu.be/67ScAb9JJoc

****

CLASS - X (Day 71)

English: https://youtu.be/AuTEG1fgFGQ

Hindi: https://youtu.be/XRes6ZPnpUM

Mathematics: Kindly see below

Science: https://youtu.be/SDLDiFxf8ew

Social Studies: https://youtu.be/WxQ1CLEgsyc

****

EMMANUEL MISSION SR SEC SCHOOL, BEAWAR

MATHEMATICS

CLASS – X

CHAPTER – 9

Some Applications To Trigonometry

---

1. A 1.5m tall boy stands at a distance of 2m from lamp post and casts a shadow of 4.5m on the ground. Find the height of the lamp post.
(a) 3 m (b) 2.5 m (c) 5 m (d) none of these

2. The tops of two poles of height 20m and 14m are connected by a wire. If the wire makes an angle of 30° with horizontal, then the length of the wire is
(a) 12 m (b) 10 m (c) 8 m (d) 6 m

3. A vertical stick 10 cm long casts a shadow 8 cm long. At the same time, a tower casts a shadow 30 m long. Determine the height of the tower.

4. An observer, 1.5 m tall, is 28.5 m away from a tower 30 m high. Find the angle of elevation of the top of the tower from his eye.

5. The shadow of a flag staff is three times as long as the shadow of the flag staff when the sun rays meet the ground at an angle of 60°. Find the angle between the sun rays and the ground at the time of longer shadow.

6. A vertically straight tree, 15m high is broken by the wind in such a way that it top just touches the ground and makes an angle of 60° with the ground, at what height from the ground did the tree break?

7. A man in a boat rowing away from lighthouse 100 m high takes 2 minutes to changes the angle of elevation of the top of lighthouse from 60° to 45° Find the speed of the boat.

8. The pilot of an aircraft flying horizontally at a speed of 1200km/hr, observes that the angle of depression of a point on the ground changes from 30° to 45° in 15 seconds. Find the height at which the aircraft is flying.

9. The angle of elevation of cloud from a point 120m above a lake is 30° and the angle ofdepression of the reflection of the cloud in the lake is 60°. Find the height of the cloud.

10. The angle of elevation of cloud from a point 60m above a lake is 30° and the angle of depression of the reflection of the cloud in the lake is 60°. Find the height of the cloud.