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**WORKSHEET- Mathematics- APPLICATIONS OF TRIGONOMETRY**

**23/10/2018**

**Grade:X**

1. The angle of elevation of the top of the hill from the foot of a tower is  and the angle of elevation of the top of the tower from the foot of the hill is . If the tower is 50m high, then find the height of the hill.

2. A boy is standing at some distance from a 30 m tall building and his eye level from the ground is 1.5 m. The angle of elevation from his eyes to the top of the building increase from  to  as he walks towards the building. Find the distance he walked towards the building.

3. A kite is flying with a string of length 200 m. If the thread makes an angle  with the ground, find the distance of the kite from the ground level.

4. A ladder leaning against a vertical wall, makes an angle with the ground. The foot of the ladder is 3.5 m away from the wall. Find the length of the ladder.

5. Find the angular elevation of the Sun when the length of the shadow of a 30 m long pole is .