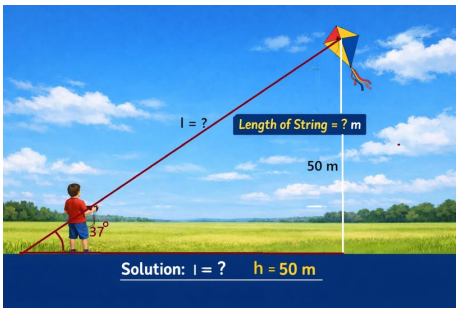
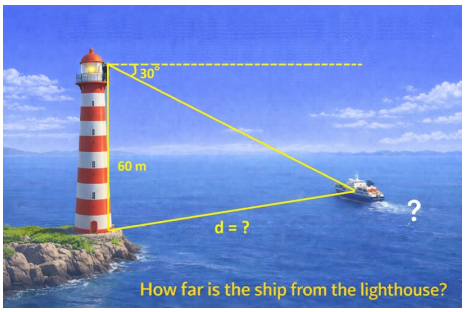
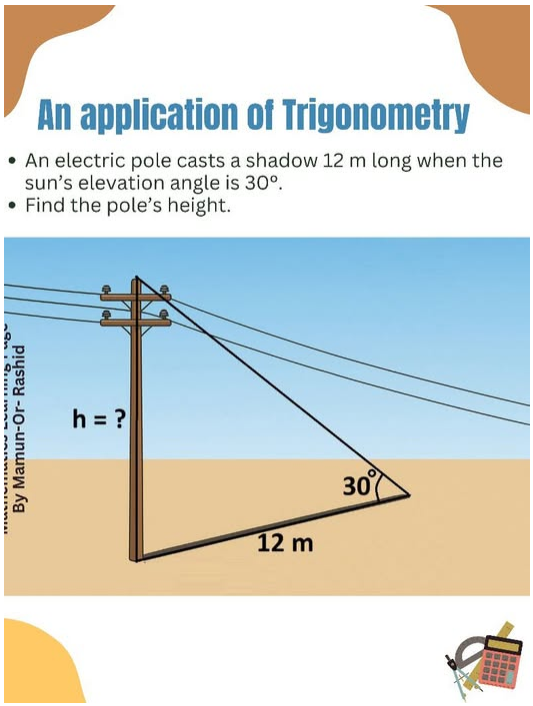
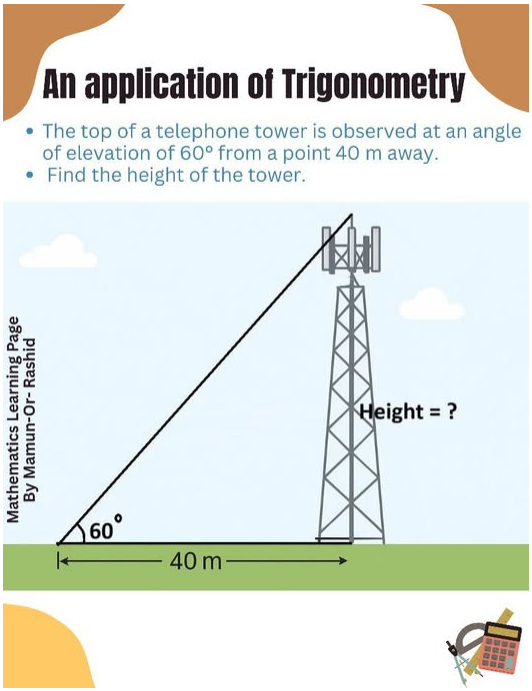
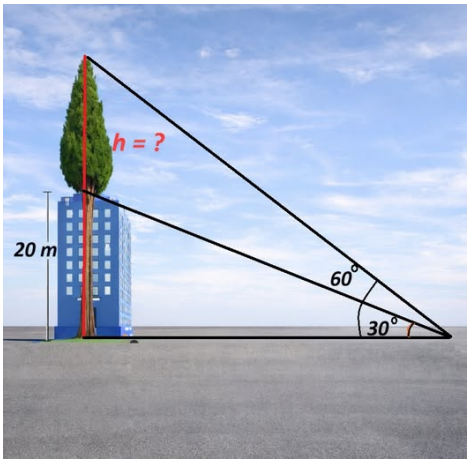


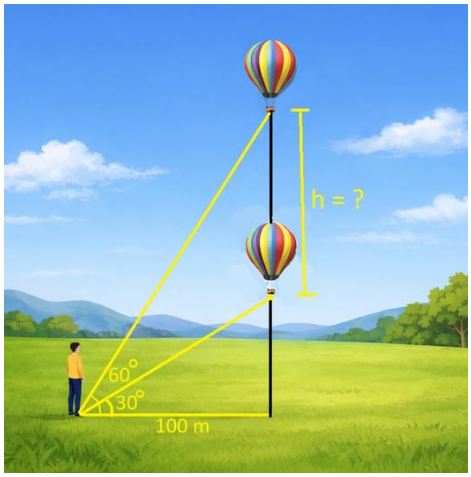


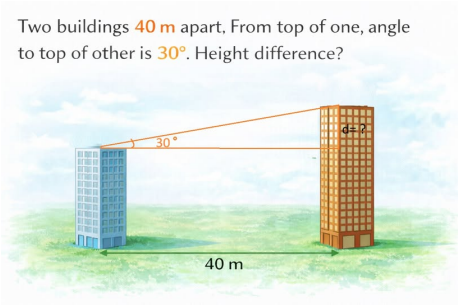


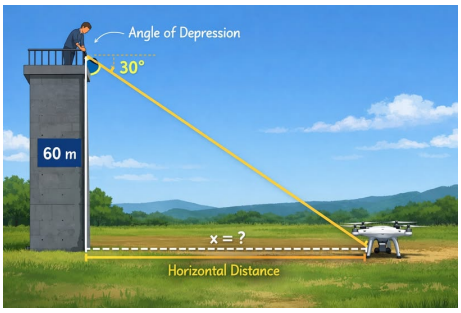


(a) Infographic: Elektriciteitspaal

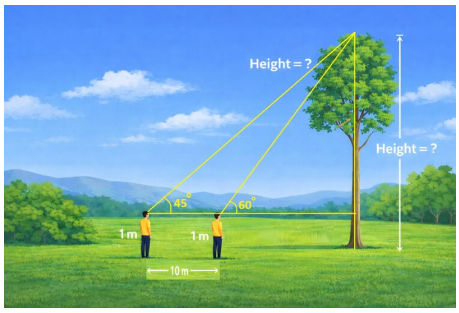


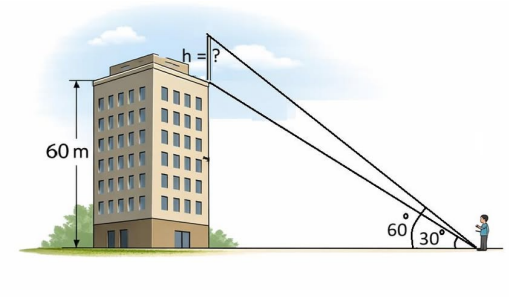


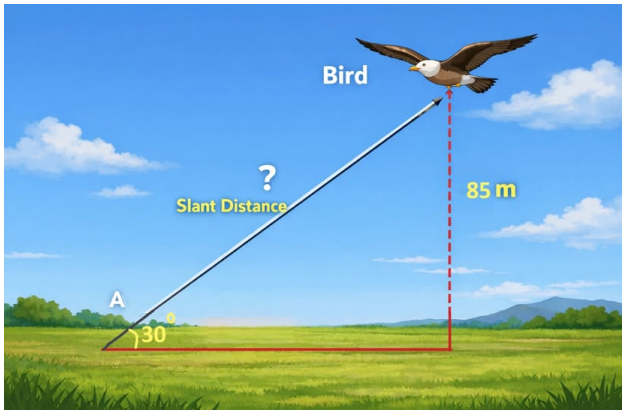


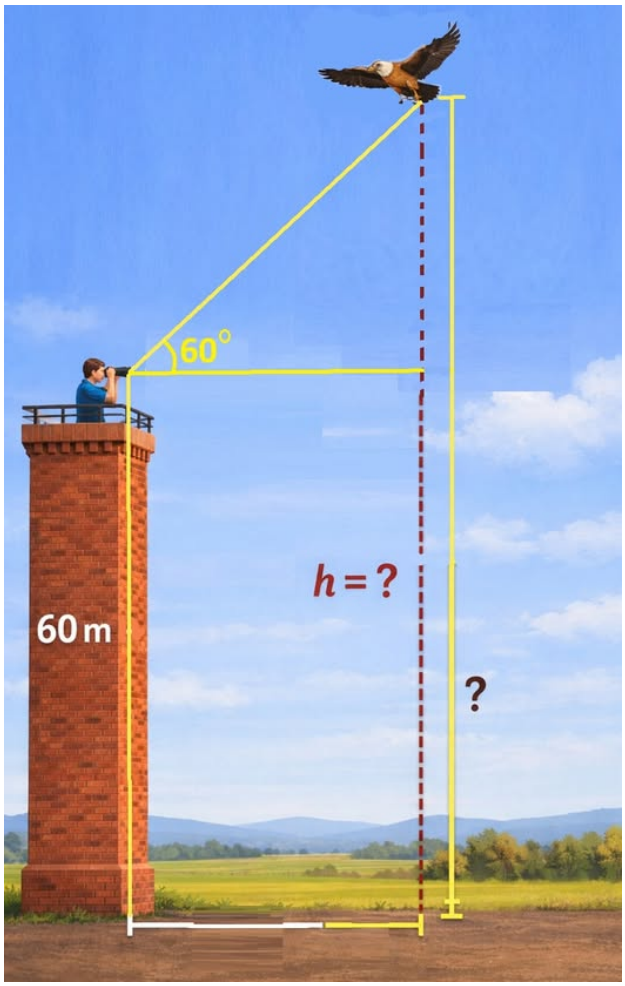


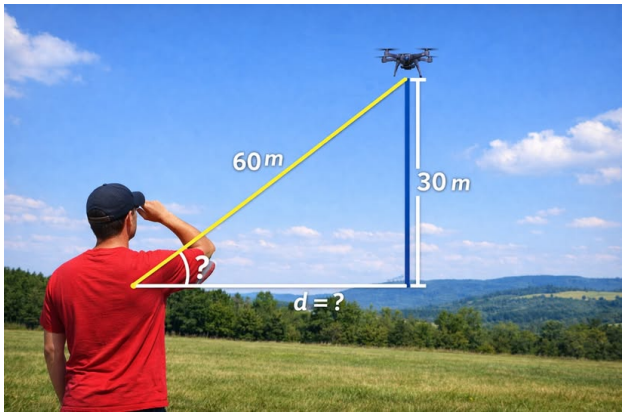
(a) Drone depressiehoek





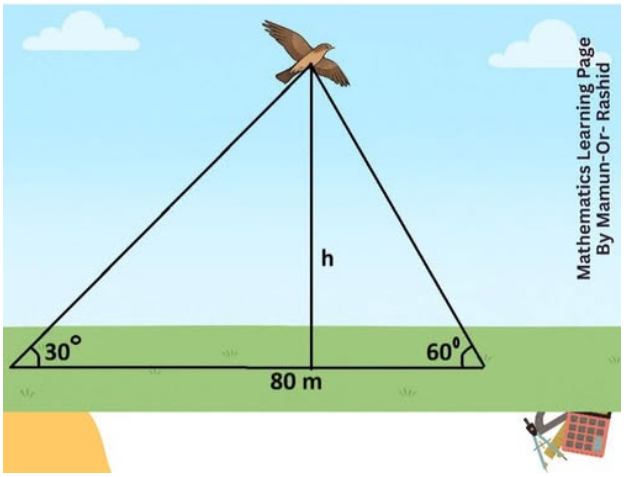




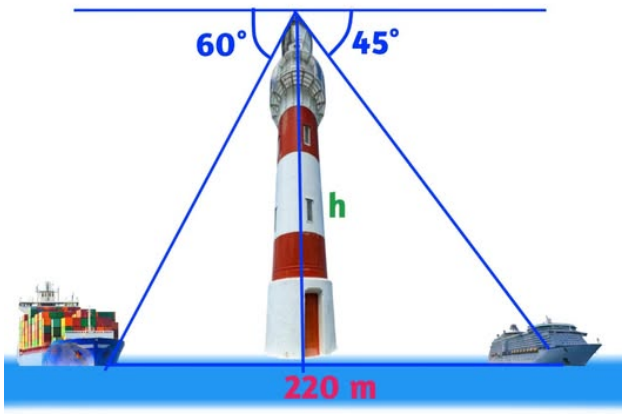


An application of Trigonometry

- Two observers, neglecting their heights, stand 80 m apart on a straight line. They observe a bird flying directly above a point on the ground between them. The angles of elevation of the bird from the two observers are 30° and 60°, respectively.
- Find the height of the bird and the horizontal distances from each observer to the point on the ground directly below the bird.

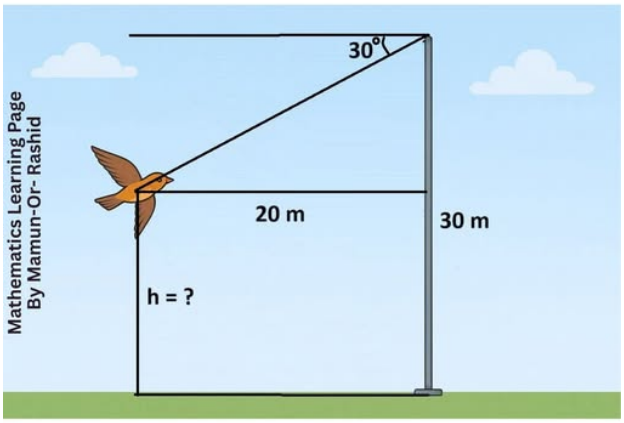


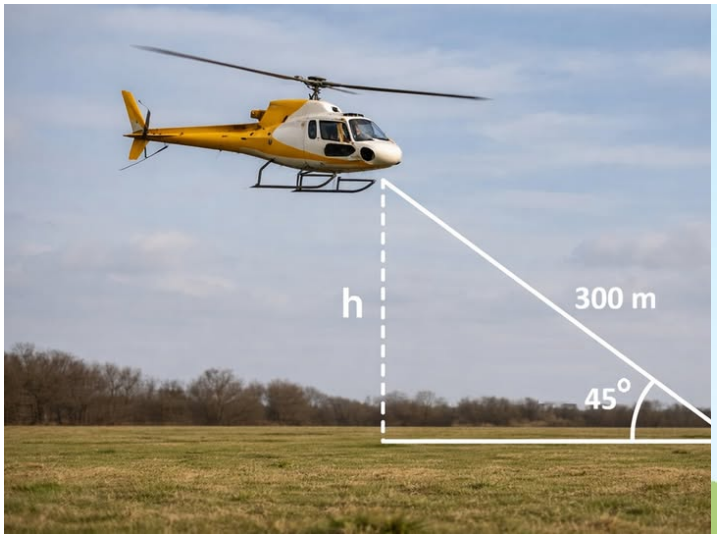
Height of the lighthouse (h) = ?

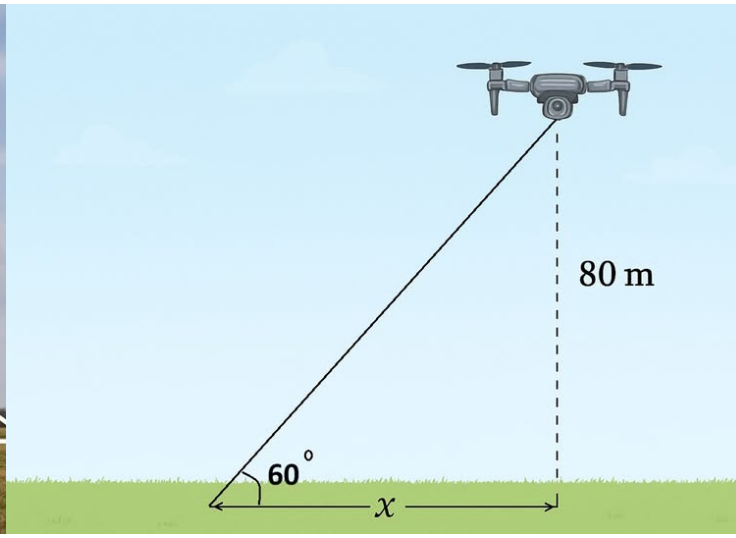


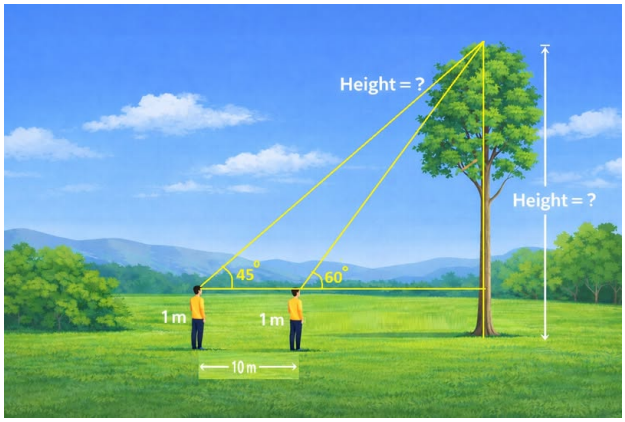
An application of Trigonometry

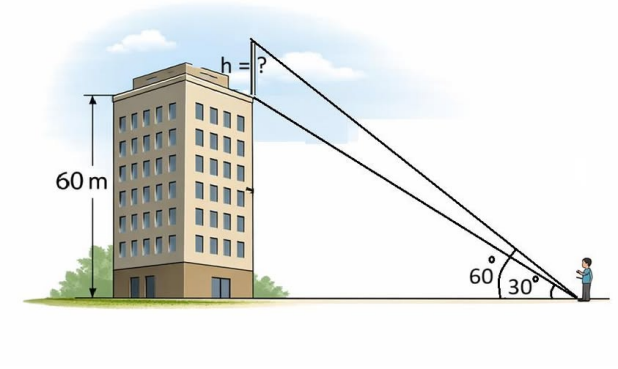
- A bird is flying level at an unknown height h. From the top of a 30 m high mast, the angle of depression to the bird is 30°.
- The bird is 20 m horizontally away from the mast. Find the h.




h
300 m
45°

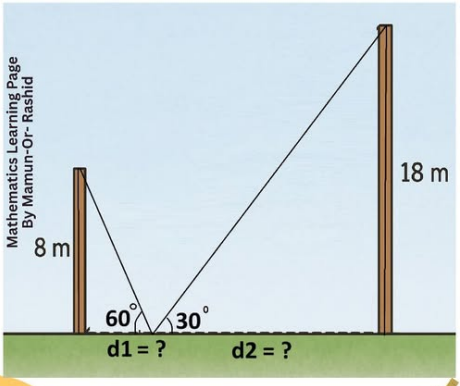

80 m
60°
x


Height = ?
Height = ?
45°
60°
1 m
1 m
10 m


h = ?
60 m
60°
30°

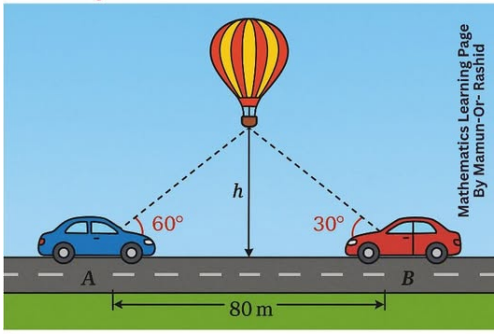
An application of Trigonometry

- The angles of elevation of the tops of two poles of heights 8 m and 18 m from a point on the ground between them are 60° and 30°, respectively.
- Find the distance between the poles.



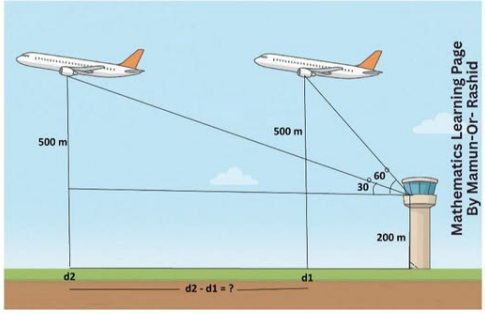
An application of Trigonometry

- Two cars, A and B, are on the same straight road and are 80 m apart. Both look at a balloon directly above a point between them.
- From A, the angle of elevation is 60°, from B it is 30°. Find the height of the balloon and the distances of the balloon's foot from A and B. Neglecting the car height.



An application of Trigonometry

- A plane flying at constant altitude sees the angle of elevation from the control tower top (Height 200 m) change from 60° to 30° while passing.
- If the altitude of the plane is 500 m, find the distance the plane travelled between the two observation points measured along the ground.



An application of Trigonometry

- An airplane is flying at a height of 1 km. The angle of elevation of the airplane from a control tower is 45°. The tower height from the point of observation is 500 m.
- Find the horizontal distance of the airplane from the tower.

