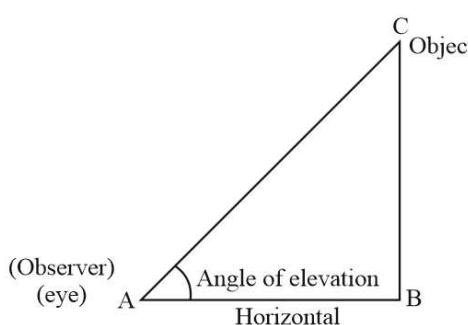


**Chapter At Glance**

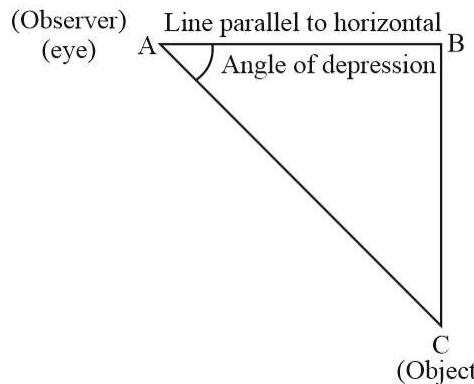
- **Line of sight:** The line of sight is the line drawn from the eye (point) of an observer to the point in the object viewed by the observer.
- **Angle of elevation:** It is the angle made between line of sight and the line parallel to horizontal from the eye of observer (when object is higher side to observer).



For example, as shown in figure, let 'A' be the point where eye (point) of the observer is situated, 'C' is the position of the object (above side of object) and A B is a line parallel to horizontal, then  $\angle CAB$  is the angle of elevation.

- **Angle of depression:** Angle of depression is the angle between line of sight and line parallel to horizontal when object is downward to observer.

For example, let 'A' be the position of eye of the observer, 'C' be the position of the object (downward to observer) and A B is a line parallel to horizontal, then  $\angle BAC$  is the angle of depression.


**Application of Trigonometry**
**Most important formulas**

- $\tan A = \frac{p}{b}$
- $\tan 30^\circ = \frac{1}{\sqrt{3}}$
- $\tan 45^\circ = 1$
- $\tan 60^\circ = \sqrt{3}$
- Elevation mean – upward
- Depression mean – downward

