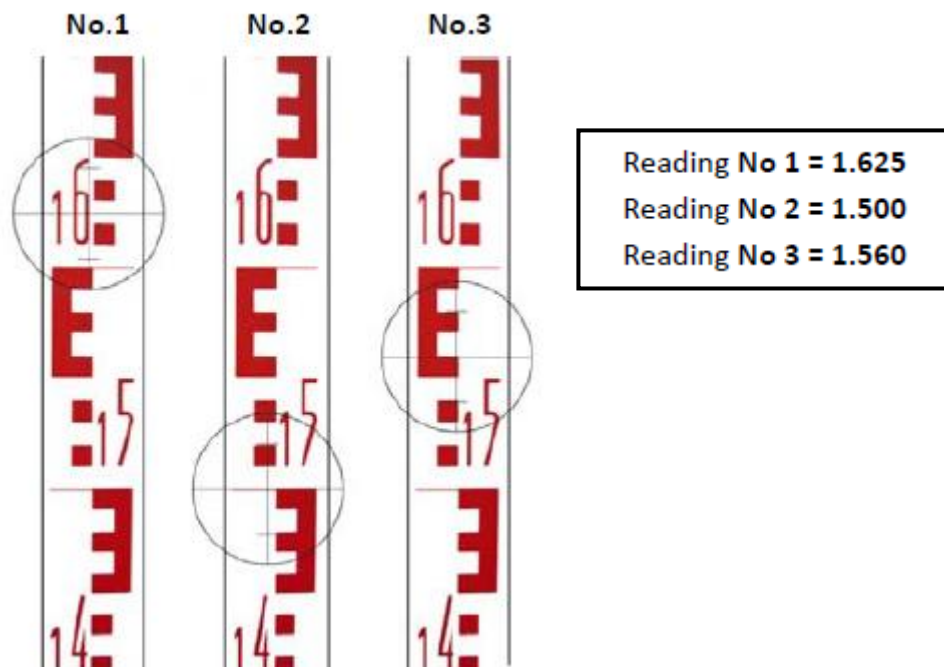


## Staff reading examples:



## DEFINITIONS

**Elevation:** is the vertical distance from a vertical datum to a point or an object.

**Leveling:** is the process of finding elevation of points, or their elevation differences.

**Mean sea level (MSL):** is average height of the surface of the sea for all stages of the tide over a 19-year period.

A benchmark (**B.M.**) is a definite point on a permanent object which has a known elevation and a known location.

A turning point (**T.P.**) is an intermediate point between benchmarks which provides a temporary point of known elevation for a level circuit between two benchmarks a long distance apart.

A backsight (**B.S.**) is a rod reading taken at a point of known elevation, such as a benchmark or turning point.

A foresight (**F.S.**) is a rod reading taken on a point for which the elevation is to be established.

The height of instrument (**H.I.**) is the elevation of the line of sight of the center of the cross-hairs in the telescope when the instrument is properly leveled.

### **Level line**

A level line or level surface is one which at all points is normal to the direction of the force of gravity

### **Horizontal line**

A horizontal line or surface is one which is normal to the direction of the force of gravity at a particular point.

### **Datum**

A datum is any reference surface to which the elevations of points are referred. The most commonly used datum is that of mean sea level (MSL).

### **Reduced level (RL)**

The RL of a point is its height above or below a reference datum.

