

8 TOTAL STATION INSTRUMENTS; ANGLE OBSERVATIONS

Asterisks (*) indicate problems that have partial answers given in Appendix G.

- 8.1** Why should a total station be carried in its case when moving to and from the field.

From Section 8.5, paragraph 5: “The instrument should NEVER be transported on the tripod since this causes stress to the tripod head, tribrach, and instrument base.”

- 8.2** Define the axis of sight, horizontal axis, and vertical axis in a total station and describe their relationship to each other.

From Section 8.2, paragraph 2: The (1) *axis of sight* defines the vertical plane, (2) *horizontal axis* is the axis about which the telescope revolves, and the (3) *vertical axis* is the axis about which the telescope can also be rotated in any azimuth.

Relationships:

1. The vertical axis should be perpendicular to the horizontal axis.
2. The axis of the line of sight should be perpendicular to the horizontal axis.