

## 23 CONSTRUCTION SURVEYING

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

**23.1** Describe the types of construction projects where laser scanners are used.

From Section 23.2.1: Tunneling, sewer pipe placement, building construction, contour farming layout, horizontal and vertical alignments, and grading.

**23.2** Discuss how line and grade can be set with a total station instrument.

From Section 23.9: At an occupied station, a backsight is taken with the instrument on a line of known azimuth and the direct to a required stake turned. The instrument is operated in tracking mode and a prism is placed on-line and adjusted in position to read the required horizontal distance, where the stake is driven. The stake can be set at its required elevation or marked as appropriate for the job.