CHAPTER 18

Chapter Review

Summary

- Maps communicate information about geographic locations and features.
- Cartographers assemble geographic data from various sources to design maps.
- Surveyors use precision instruments such as theodolites to gather geographic data.
- Plot maps, site maps, city maps, and topographic maps all provide geographic information for use with residential and commercial construction projects.
- Special-purpose maps provide information for business and recreation.
- Map symbols describe locations and activities with simple graphics.
- Geographic information system (GIS) and CAD programs can use spatial data to generate 2D maps or 3D point clouds.

Test Your Knowledge

Answer the following questions using the information provided in this chapter.

1. What is a map?
2. List at least three reasons why maps are used.
3. A professional mapmaker is called a(n) _____.
4. A surveyor uses an instrument called a(n) _____ to gather angular measurement data to prepare a map.
5. What are bearings?
6. In metric surveying, the areas of the surveyed land are given in _____ instead of acres.
7. Why must maps be drawn to a scale less than full scale?
8. What is a plot plan and what does it show?
9. Differences in elevation on a drawing or map are often shown with _____ lines.
10. What is a topographic map?

Applying Your Knowledge(optional)

1. Obtain samples of special-purpose maps and make a bulletin board display.
2. Prepare a map showing the school grounds of your school. Label all athletic fields.
3. Make a plot plan of the property on which your home is located. Show the street and make sure that the north direction is facing "up."
4. Prepare a map of your neighborhood. Label all businesses, churches, and schools.
5. Draw a map showing the route you take in coming to school.
6. Obtain a road map of your state. Plot the shortest route between your hometown and the capital of your state. If you live in the capital city, plot the shortest route between it and the next largest city in the state.
7. Prepare a special-purpose map that shows the locations of the various schools in your school district.

STEM Activities (optional)

1. **Technology:** If survey equipment is available, prepare a survey of the school grounds. Compare the results with an actual survey of the grounds.
2. **Engineering:** Measure and sketch the parking lot at your school. Redesign and try to improve the efficiency of the original design. Create a drawing of the lot to an appropriate scale. Assuming the lot would be paved with 4" of asphalt, calculate how many cubic yards of asphalt would be needed to pave the lot.