Name _____ Class _____ Date _____

Chapter 3

Models of the Earth

Review

Choose the best response. Write the letter of that choice in the space provided.

_____ **1.** A point whose latitude is 0° is located on the

a. North Pole. **b.** South Pole. **c.** equator. **d.** prime meridian.

_____ **2.** One degree of latitude equals

a. 1/90 the earth's circumference. **b.** 1/100 the earth's circumference.
c. 1/360 the earth's circumference. **d.** 1/720 the earth's circumference.

_____ **3.** A point whose longitude is 0° is located on the

a. North Pole. **b.** South Pole. **c.** equator. **d.** prime meridian.

_____ **4.** A point halfway between the equator and the South Pole has a latitude of

a. 45° N. **b.** 45° S. **c.** 45° E. **d.** 45° W.

_____ **5.** The distance in degrees east or west of the prime meridian is

a. latitude. **b.** longitude. **c.** declination. **d.** projection.

_____ **6.** The distance covered by a degree of longitude

a. is 1/180 the earth's circumference. **b.** is 1/360 the earth's circumference.
c. increases as you approach the poles. **d.** decreases as you approach the poles.

_____ **7.** The needle of a magnetic compass points toward the

a. geomagnetic pole. **b.** geographic pole.
c. parallels. **d.** meridians.

_____ **8.** In the Northern Hemisphere, a declination of 10° E indicates that the compass needle points 10° east of the

a. geomagnetic North Pole. **b.** geographic North Pole.
c. equator. **d.** prime meridian.

_____ **9.** On a Mercator projection, distortion is greatest near the

a. poles. **b.** great circles. **c.** meridians. **d.** parallels.

Name _____ Class _____ Date _____

Chapter 3

Choose the best response. Write the letter of that choice in the space provided.

_____ **10.** Compass directions are shown as straight lines on a

a. gnomonic projection. **b.** conic projection.
c. Mercator projection. **d.** polyconic projection.

_____ **11.** The shortest distance between any two points on the globe is along

a. the equator. **b.** a line of latitude.
c. the prime meridian. **d.** a great circle.

_____ **12.** A navigator can find the shortest distance between two points by drawing a straight line between any two points on a

a. Mercator projection. **b.** gnomonic projection.
c. conic projection. **d.** polyconic projection.

_____ **13.** The relationship between distance on a map and actual distance on the earth is called the

a. legend. **b.** scale. **c.** elevation. **d.** relief.

_____ **14.** If 1 m on a map equals 1 km on the earth, the fractional scale would be written

a. 1:1. **b.** 1:10. **c.** 1:100. **d.** 1:1,000.

_____ **15.** On a topographic map, elevation is shown by means of

a. great circles. **b.** contour lines. **c.** verbal scale. **d.** fractional scale.

_____ **16.** Closely spaced contour lines indicate a

a. gradual slope. **b.** flat area. **c.** steep slope. **d.** valley.

Critical Thinking

Read each question or statement and answer it in the space provided.

1. What is wrong with the following location: 135° N, 185° E?

Chapter 3

Read each question or statement and answer it in the space provided.

2. As you move from point A to point B in the Northern Hemisphere, the length of a degree of longitude progressively decreases. In which direction are you moving?

3. Imagine you are at a location where the magnetic declination is 0°. Describe your position in relation to magnetic north and true north.

4. You examine a topographic map on which the contour interval is 100 m. In general, what type of terrain is shown on the map?

5. Selecting from the list of new terms on the previous page, which one term would most likely be found at the top of a concept map designed for this chapter? Explain.

Name _____ Class _____ Date _____

Chapter 3

Application

Read each question or statement and answer it in the space provided.

1. One expedition is preparing to explore the South Pole; another is preparing to explore the equator. To which expedition would you recommend the Mercator projection? Explain why.

2. A cartographer has to draw one map for use in three different countries that do not share a common unit of measure. Which type of scale should this mapmaker use? Why?

3. You are using a topographic map to plan a hike. Along path A, the contour lines are widely spaced. Along path B, the contour lines are almost touching. Which path would probably be easier and safer? Why?

4. How could you use contour lines on a topographic map to help you locate the source of a river?