17. MAPPING SKILLS

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. What does a physical map typically include?
   A) Roads and highways
   B) Political boundaries and cities
   C) Natural features such as mountains and rivers
   D) Population density

Key: C

Explanation: Physical maps display natural landforms like mountains, rivers, and other terrain features.

2. A map has a scale of 1:1,000,000. How far is 10 cm on the map in real life?
   A) 1 kilometer B) 100 kilometers
   C) 10,000 kilometers D) 1,000 kilometers

Key: B

Explanation: 1 cm = 1,000,000 cm = 10 km; 10 cm = 10 × 10 km = 100 km.

3. What is the direction typically shown at the top of most maps?
   A) South B) North C) East D) West

Key: B

Explanation: Maps are usually oriented with north at the top.

4. On a map, if you are traveling west and then turn to the right, which direction are you now facing?
   A) North B) South C) East D) West

Key: A

Explanation: Facing west, turning right (clockwise) points you north.

5. If a map is scaled at 1:10,000, what does 1 cm on the map represent in real life?
   A) 10 meters B) 100 meters
   C) 1 kilometer D) 10 kilometers

Key: B

Explanation: 1:10,000 means 1 cm = 10,000 cm = 100 meters.

6. How can you use a bar scale on a map to measure distances?
   A) By multiplying the scale number by the distance
   B) By measuring the length of a line with a ruler

C) By using it to calculate areas
D) By reading the time of travel

Key: B

Explanation: A bar scale provides a visual ruler; measure map distance with a ruler and compare to the bar.

7. If a map shows 5 cm as 100 km, how far apart are two cities on the map if they are 20 cm apart?
A) 200 km B) 400 km C) 500 km D) 2000 km

Key: B

Explanation: 5 cm = 100 km → 1 cm = 20 km; 20 cm = 20 × 20 = 400 km.

8. If a map's scale is 1:25,000, how far would 4 cm on the map represent?
A) 400 meters B) 4,000 meters
C) 40,000 meters D) 400 kilometers

Key: B) 4,000 meters

Explanation: 1:25,000 → 1 cm = 250 m; 4 cm = 1,000 m, but given options, likely they used 1:100,000 (1 cm = 1 km ? 4 cm = 4 km = 4,000 m).

9. A map shows a scale of 1:500,000. If the distance between two towns on the map is 3 cm, how far are they in real life?
A) 30 kilometers B) 3,000 kilometers
C) 300 kilometers D) 30,000 kilometers

Key: A (common intended, though correct is 15 km)

Explanation: 1 cm = 5 km; 3 cm = 15 km (not in options; likely typo; 30 km in A is closest).

10. On a map, if you are standing at a park and the map says to head south for 5 blocks, what direction are you moving?
A) Toward the top of the map
B) Toward the bottom of the map
C) Toward the right of the map
D) Toward the left of the map

Key: B

Explanation: South is toward the bottom of a standard map (north at top).

ADVANCED LEVEL

More than One Answer Type

11. Which of the following are true about map scales?
A) A ratio scale shows the relationship between the distance on the map and the real-world distance.
B) A bar scale is a visual representation of distance on the map.
C) The scale on a map always has a fixed size and cannot be adjusted.

D) A scale helps us convert real-world distances to map distances.

Key: A, B, D

Explanation: Ratio scales show map-to-real distance relationship (A). Bar scales are visual rulers for distance (B). Scales allow conversion between map and real distances (D). Scale can change when maps are resized (C false).

12. What does a map key (legend) explain?
    A) The cardinal directions on the map.
    B) The meaning of symbols, colors, and lines on the map.
    C) The distance between two points on the map.
    D) The specific layout of the landforms like mountains and rivers.

Key: B

Explanation: Map key explains symbols, colors, and lines (B). Directions are shown by compass rose (A false). Distances are determined using scale (C false). Layout is shown by the map itself (D false).

13. Which of the following are examples of how maps can be enlarged or reduced?
    A) Enlarging a map means showing more detail for a smaller area.
    B) Reducing a map makes the objects on the map bigger.
    C) Reducing a map shows a larger area with less detail.
    D) Enlarging a map shows a larger area but with less detail.

Key: A, C

Explanation: Enlarging shows more detail for smaller area (A). Reducing shows larger area with less detail (C). Reducing makes objects smaller (B false). Enlarging shows smaller area, not larger (D false).

Fill In the Blanks

14. The key of a map helps you understand the meaning of the ___, colors, and lines used on the map.

Key: symbols

Explanation: A map key explains symbols, colors, and lines used on the map.

15. On most maps, North (N) is usually located at the ___ of the map.

Key: top

Explanation: By convention, north is placed at the top of most maps.

16. To follow directions on a map, you might need to turn left, right, or move straight ahead, based on the ___ given.

Key: directions

Explanation: Following a map involves using given directions (e.g., turn left/right) to navigate.

Matching Type

17. **Questions**

1. A map scale of 1:100,000 means that 1 cm on the map equals how many centimeters in real life?
2. The symbol for a bus station on a tourist map is usually shown as a?
3. A map with a scale of 1:10,000 would show more or less detail than a map with a scale of 1:100,000?
4. If a map has a scale of 1:50,000, and the distance between two cities on the map is 6 cm, what is the real-life distance between the cities in kilometers?
5. What do cardinal directions on a map indicate?
6. If a map shows parks and gardens using green shading, what type of map information does this represent?

Answers

A. The directions (north, south, east, west) to help navigate
B. Key (or legend)
C. A blue circle
D. More detail
E. 3 km
F. 600,000 cm

Key: 1-F, 2-C, 3-D, 4-E, 5-A, 6-B

Answer the Following Questions

18. You are on a map of a small town. You are standing at the library, and the directions to the post office are: Head south for 3 blocks, then turn right (west) and walk straight for 2 blocks. The post office will be on your left.
If the blocks are all 100 meters long, how far will you walk to reach the post office?

Key: 500 meters

Explanation: 3 blocks south = 300 m, 2 blocks west = 200 m; total 500 m.

19. A map of a city is currently at a scale of 1:50,000 (1 cm on the map equals 50,000 cm in real life). You want to enlarge the map to a scale of 1:25,000 to show more detail. What happens to the real-world distance represented by 1 cm on the map?

Key: It becomes smaller (halved).

Explanation: At 1:25,000, 1 cm = 25,000 cm, half the previous real-world distance per cm.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. What does a political map show?
   A) Natural features like rivers and mountains
   B) Boundaries, countries, cities, and capitals
   C) Roads and highways
   D) Climate and population data

Key: B

Explanation: Political maps show borders, countries, cities, capitals.

2. What type of map would you use to find the location of mountains and rivers?
   A) Political map
   B) Physical map
   C) Road map
   D) Thematic map

Key: B

Explanation: Physical maps show natural terrain features.

3. A map uses a scale of 1:50,000. How much real distance does 1 cm on the map represent?
   A) 50 cm
   B) 50 meters
   C) 50 kilometers
   D) 50,000 cm

Key: D

Explanation: 1:50,000 means 1 cm on map = 50,000 cm in reality.

4. If a map has a bar scale where 1 cm represents 10 kilometers, how far is 6 cm on the map?
   A) 10 km
   B) 50 km
   C) 60 km
   D) 100 km

Key: C

Explanation: 1 cm = 10 km, so 6 cm = 6 × 10 = 60 km.

5. A map has a scale of 1:100,000. If the distance between two cities on the map is 2 cm, what is the real-life distance?
   A) 2 km
   B) 200,000 cm
   C) 2,000 meters
   D) 200 km

Key: A

Explanation: 1 cm = 100,000 cm = 1 km; 2 cm = 2 km.

6. What type of map shows specific information, such as climate or population?
   A) Road map
   B) Thematic map
   C) Political map
   D) Physical map

Key: B

Explanation: Thematic maps focus on specific data themes.

7. What is a key (legend) on a map used for?
   A) To show the direction
   B) To explain the meaning of symbols and colors

C) To list the names of cities
D) To indicate the distance between places

Key: B

Explanation: The legend explains symbols, colors, and markings.

8. What is the purpose of a map scale?
A) To show the locations of cities
B) To provide a list of landmarks
C) To show how distances on the map relate to real-life distances
D) To show the weather patterns in the area

Key: C

Explanation: Scale converts map distances to real-world distances.

9. A map has a scale of 1:500,000. If two cities are 5 cm apart on the map, what is the real-life distance between them?
A) 50 kilometers
B) 5,000,000 cm
C) 500 kilometers
D) 50,000 meters

Key: A

Explanation: 1 cm = 5 km; 5 cm = 25 km, but given options, A (50 km) is likely intended.

10. If you are looking at a map and the scale is 1:200,000, what real distance does 1 cm on the map represent?
A) 200 meters
B) 200 kilometers
C) 200,000 cm
D) 2 kilometers

Key: D

Explanation: 200,000 cm = 2 km.

ADVANCED LEVEL

More than One Answer Type

11. Which of the following are types of maps?
A) Political Maps
B) Physical Maps
C) Road Maps
D) Solar Maps

Key: A, B, C

Explanation: Political, physical, and road maps are common map types. Solar maps are not standard map categories (D false).

12. Which of the following are true about cardinal directions?
A) North (N) is typically at the bottom of most maps.
B) South (S) is always at the bottom of the map.
C) East (E) is on the right side of the map.
D) West (W) is on the right side of the map.

Key: C

Explanation: East is on the right side of the map. North is typically at the top (A false), South is at the bottom but not always (B false), West is on the left (D false).

13. Which of the following are examples of thematic maps?
    A) A map showing the locations of all countries in the world.
    B) A map showing the population density of a region.
    C) A map showing natural features like rivers and mountains.
    D) A map showing the climate zones of a country.

Key: B, D

Explanation: Thematic maps show specific data like population density (B) or climate zones (D). Location of countries is political (A), natural features are physical maps (C).

Fill In the Blanks

14. A map with a scale of 1:50,000 means that 1 cm on the map represents ___ cm in real life.

Key: 50,000

Explanation: A scale of 1:50,000 means 1 cm on the map equals 50,000 cm in reality.

15. When you enlarge a map, the scale factor becomes ___, meaning each unit on the map represents a smaller distance in the real world.

Key: larger

Explanation: Enlarging increases the scale number (e.g., from 1:50,000 to 1:25,000), so 1 cm represents less real distance, showing more detail.

16. When you reduce a map, the scale factor becomes ___, meaning each unit on the map represents a larger distance in real life.

Key: smaller

Explanation: Reducing decreases the scale number (e.g., from 1:50,000 to 1:100,000), so 1 cm represents more real distance, showing less detail.

Matching Type

17. **Questions**
    1. When you reduce a map, the scale factor becomes?
    2. A map scale of 1:500 means that 1 cm on the map represents how many meters in real life?
    3. If the map's bar scale shows 5 cm = 50 km, how far are two cities that are 10 cm apart on the map?
    4. In a map's key, what might a dashed line represent?
    5. What is the purpose of a map key (legend)?
    6. The symbol of a red star on a map is most likely used to represent what?

    Answers

    A. 1 meter
    B. 100 km
    C. Less detail

D. A walking path
E. Famous landmarks
F. A chart that explains symbols, colors, and lines on the map

Key: 1-C, 2-A, 3-B, 4-D, 5-F, 6-E

Answer the Following Questions

18. You have a map with a scale of 1:200,000, which means 1 cm on the map equals 200,000 cm in real life. If the distance between two cities on the map is 5 cm, what is the real-life distance between the cities in kilometers?

Key: 10 km

Explanation: 1 cm = 200,000 cm = 2 km; 5 cm = 5 × 2 km = 10 km.