

HW

Name: _____

Review Questions

26. Which would cause the potential evaporation and transpiration to increase in a given month?
- (1) below-normal precipitation
 - (2) a major flood
 - (3) a month-long cold spell
 - (4) higher amount of solar energy
27. Although New York City is at approximately the same latitude as Omaha, Nebraska, New York City's winter months are warmer and summer months are cooler. Which statement best explains why this is so?
- (1) The sun's rays shine more directly on New York City in the winter.
 - (2) Nebraska is nearer to the Rocky Mountains.
 - (3) The water around New York City has a moderating effect on the temperature
 - (4) The prevailing westerlies have a greater effect on Omaha than on New York City.
28. Which would cause the potential evaporation and transpiration to decrease in a given month?
- (1) below-normal precipitation
 - (2) drilling of a large well
 - (3) a month-long cold spell
 - (4) a high rainfall
29. Which generally has the greatest effect in determining the climate of an area?
- (1) degrees of longitude
 - (2) extent of vegetation
 - (3) distance from equator
 - (4) month of the year
30. Two locations, one in northern Canada and one in the southwestern United States, receive the same amount of precipitation each year. The location in Canada is classified as a humid climate. Why would the location in the United States be classified as an arid climate?
31. The planetary wind and moisture belts indicate that large amounts of rainfall occur at Earth's equator because air at Earth's surface is
- (1) converging and rising
 - (2) converging and sinking
 - (3) diverging and rising
 - (4) diverging and sinking
32. Describe the temperature differences between a coastal city and an interior city, at the same latitude, during summer and winter.
33. Which climate conditions are typical of regions near the North Pole and the South Pole?
- (1) low temperature and low precipitation
 - (2) low temperature and high precipitation
 - (3) high temperature and low precipitation
 - (4) high temperature and high precipitation
34. As the degrees of latitude from the equator increases, what generally happens to the yearly average temperature?
35. On one of the Hawaiian Islands, the annual rainfall is 200 inches per year on one side of the island and less than 20 inches per year on the opposite side of the same island. This difference is most likely caused by
- (1) jet streams
 - (2) hurricanes or typhoons
 - (3) monsoons
 - (4) prevailing winds and mountains
36. Which two climate factors are most directly responsible for the amount of snowfall normally received in Buffalo, New York?
- (1) ocean currents and storm tracks
 - (2) mountain barriers and average temperatures
 - (3) elevation and potential evaporation and transpiration
 - (4) prevailing wind direction and proximity to a large body of water
37. Which planetary wind pattern is present in many areas of little rainfall?
- (1) Air sinks and winds converge.
 - (2) Air rises and winds converge.
 - (3) Air sinks and winds diverge.
 - (4) Air rises and winds diverge.
38. Which area of New York State would probably have the lowest annual temperature range?
- (1) Long Island
 - (2) the Catskills
 - (3) the Adirondack peaks
 - (4) the Mohawk Valley
39. Bodies of water have a moderating effect on climate primarily because
- (1) Water gains heat more rapidly than land does.
 - (2) Water surfaces are flatter than land surfaces.
 - (3) Water temperatures are always lower than land temperatures.
 - (4) Water temperatures change more slowly than land temperatures do.

Which is a characteristic of water that helps the oceans to moderate the climates of Earth?

- (1) Water is a fluid with a high specific heat.
- (2) Water can exist as a high-density solid.
- (3) Water can dissolve and transport minerals.
- (4) Water can flow into loose sediments to deposit mineral cements.

41. If Lake Michigan were to vanish, the winters in Chicago would probably

- (1) remain the same in temperature and humidity
- (2) remain the same in temperature but become drier
- (3) become colder and drier
- (4) become warmer and drier

42. Which locality has the greatest annual range of temperature?

- (1) Seattle, Washington
- (2) Bismarck, North Dakota
- (3) New York City
- (4) Miami, Florida

43. Compared to an inland location of the same elevation and latitude, a coastal location is likely to have

- (1) warmer summers and cooler winters
- (2) warmer summers and warmer winters
- (3) cooler summers and cooler winters
- (4) cooler summers and warmer winters

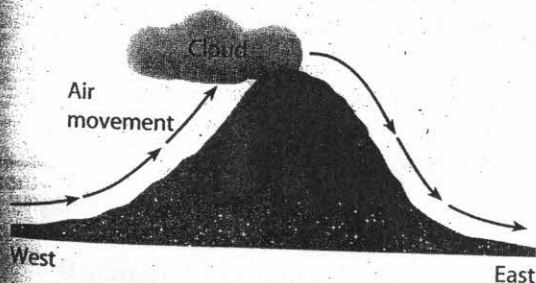
44. A low-pressure storm center located over New York State will most likely move toward the

- (1) southeast
- (2) southwest
- (3) east
- (4) northwest

45. As a parcel of air rises, its temperature will

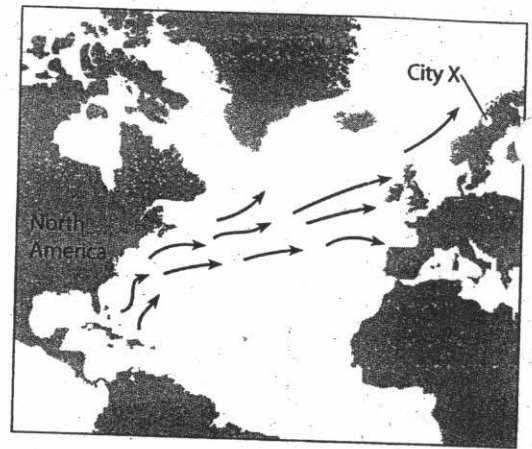
- (1) decrease due to expansion
- (2) decrease due to compression
- (3) increase due to expansion
- (4) increase due to compression

46. Which statement best explains why a cloud is forming in the following diagram?



- (1) Water vapor is condensing.
- (2) Moisture is evaporating.
- (3) Cold air rises and compresses.
- (4) Warm air sinks and expands.

47. Arrows on the map represent ocean currents.



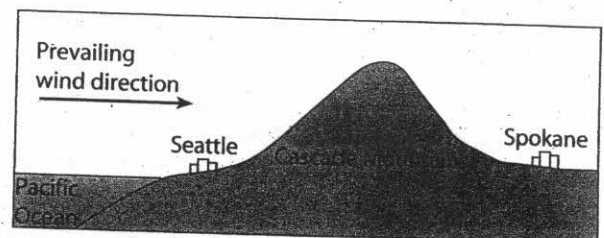
These ocean currents affect the climate pattern of city X by

- (1) decreasing the average annual cloud cover
- (2) decreasing the average annual evaporation and transpiration
- (3) increasing the average annual temperature
- (4) increasing the average annual air pressure

48. Two coastal cities have the same latitude and elevation, but are located near different oceans. Which statement best explains why the two cities have different climates?

- (1) They have different longitudes.
- (2) They are near different ocean currents.
- (3) They have different angles of insolation.
- (4) They have different numbers of daylight hours.

49. The following diagram shows the locations of the cities of Seattle and Spokane, Washington. Both cities are located at approximately 48°N latitude, and the Cascade Mountains separate them.



How does the climate of Seattle compare with the climate of Spokane?

- (1) Seattle—hot, dry; Spokane—cool, humid
- (2) Seattle—hot, humid; Spokane—cool, dry
- (3) Seattle—cool, humid; Spokane—warm, dry
- (4) Seattle—cool, dry; Spokane—warm, humid