

Name: _____ Date: _____ Period: _____

MATCHING: Select the letter of the word in Column B that best matches the phrases in Column A.

COLUMN A

- ____ 1. a unit of atmospheric pressure
- ____ 2. a line joining points of equal air pressure
- ____ 3. an instrument that measures atmospheric pressure
- ____ 4. an instrument that measures temperature
- ____ 5. a line joining points of equal air temperature

COLUMN B

- A. isotherms
- B. millibar
- C. isobar
- D. thermometer
- E. barometer

MULTIPLE CHOICE: Select the letter that best completes the statement or answers the question.

- 6. A barometer can be used as an altimeter because
 - a. air pressure is greater at higher altitudes.
 - b. there is less water vapor at lower altitudes.
 - c. the temperature is lower at lower altitudes.
 - d. the air pressure is less at higher altitudes.

- 7. An instrument that keeps a continuous record of temperature is the
 - a. thermostat
 - b. mercury thermometer
 - c. barometer
 - d. thermograph

- 8. An instrument which uses a wet and a dry bulb thermometer is called a
 - a. psychrometer
 - b. anemometer
 - c. barometer
 - d. thermograph

- 9. A scientist specializing in the study of weather is called a(n)
 - a. astronomer
 - b. geologist
 - c. meteorologist
 - d. oceanographer

- 10. A pressure reading of 74 cm of mercury is equal to
 - a. 980.0 mb
 - b. 986.8 mb
 - c. 1000.0 mb
 - d. 1013.2 mb

11. The normal pressure of the atmosphere at sea level is about
- 34 feet/ft²
 - 76 cm/cm²
 - 15 lb/in²
 - 760 mm/cm²
12. Winds are named after the direction they are blowing
- toward
 - from
 - into
 - at
13. The pressure of the atmosphere at sea level is
- 14.7 lb/in²
 - 30 lb/in²
 - 15 lb/in²
 - 76 cm/ in²
14. Air pressure is expressed in units of measure called
- isobars
 - millibars
 - inches
 - degrees
15. Barometers are used to
- measure temperature
 - predict weather
 - measure relative humidity
 - predict precipitation
16. Wind speed on a weather map is indicated by
- a long dotted line shaped like an arrow
 - a number written in the lower left corner of the station model
 - lines called feathers drawn on the stem of an arrow
 - arrows

COMPLETION: Complete the statements with the word(s) that best make the statement correct.

17. Properties of the air that change from time to time are called _____.
18. Weather is defined as a description of the atmospheric variables at a particular _____.
19. Scientists who study weather are called _____.
20. Isolines on a weather map connecting points of equal pressure are called _____.
21. On a weather map, isolines of equal pressure are labeled in units of _____.
22. Regions where isobars increase in value as the center is approached are _____ pressure areas.
23. Regions where isobars decrease in value as the center is approached are _____ pressure areas.

24. Draw an example of how fronts are illustrated on a weather map.

Cold Front

Warm Front

Stationary Front

Occluded Front

25. Weather occurs

- a. only in the troposphere
- b. in the troposphere and stratosphere
- c. in the stratosphere
- d. above the stratosphere

26. The atmosphere is bound to the Earth by

- a. magnetic fields
- b. atmospheric pressure
- c. the force of gravity
- d. molecular bonding

27. Weather predictions are

- a. based on the probability that the atmosphere will change in a certain way.
- b. based on the probability that the atmosphere will not change in a certain way.
- c. determined by the positions of the planets with respect to each other.
- d. based only on the data from the last two years.

28. Climates and weather depend upon the

- a. formation of the atmosphere
- b. circulation of the atmosphere
- c. evaporation of the atmosphere
- d. melting of the atmosphere

30. The condition of the atmosphere at a given location for a certain short period of time is called

- a. the watch
- b. weather
- c. the relative humidity
- d. a contingency table

Write the letter of the definition on the right in the space next to the correct word or phrase on the left.

- | | |
|--------------------------|--|
| _____1. Millibar | a. Formed when cold air mass and warm air mass meet and do not move |
| _____2. Stationary front | b. Person who studies atmospheric changes, particularly those that are weather-related |
| _____3. Fog | c. Unit of measure for air pressure |
| _____4. Air masses | d. Air in which relative humidity is 100% |
| _____5. Isotherms | e. Formed when cold air moves into a region and replaces warm air |
| _____6. Cold front | f. Condition of atmosphere at a certain place and time |
| _____7. Warm front | g. Clouds that have formed close to the ground |
| _____8. Weather | h. Lines on weather maps that connect places with the same temperature |
| _____9. Saturated air | i. Huge bodies of air that form over a region and have the temperature and humidity of that region |
| _____10. Meteorologist | j. Formed when warm air moves into a region and replaces cold air |

Circle the word or phrase that best completes each sentence.

1. A percent that compares the actual amount of water vapor in the air with the maximum amount the air can hold at a given temperature is called the
 - (a) saturation point
 - (b) relative humidity
 - (c) isobar.
2. When a warm front moves into an area,
 - (a) usually the skies are gray and there is often a drizzle
 - (b) there is often heavy precipitation followed by clearing when the front has moved through
 - (c) there is usually little change in the weather.
3. On a station model, the amount of shading in the station circle gives information about the
 - (a) temperature
 - (b) humidity
 - (c) sky cover.
4. On a weather map, lines that connect places that have the same pressure are called
 - (a) millibars
 - (b) isotherms
 - (c) isobars.
5. Maritime tropical (mT) air masses form
 - (a) over water near the equator
 - (b) over land near the equator
 - (c) over cold waters.

Decide whether each statement is true or false. In the space provided, write T or F. If the statement is false, correct the underlined word or words.

_____ 1. Warm air can hold more water vapor than cold air.

_____ 2. Cold fronts are usually associated with long periods of gentle rain.

_____ 3. When the air temperature is very close to the dew point temperature the air is very dry.

_____ 4. When saturated air is cooled, some of the water vapor will condense to form clouds or precipitation.

_____ 5. A description of weather conditions at a particular weather station is called a weather map.