

# Mr. P's Science Test!

## WEATHER- 2017

# \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

1. Draw and label a weather station model. (10 pts)

2. The \_\_\_\_\_ is the layer of the atmosphere with our weather.

3. Meteorologists classify clouds in about \_\_\_\_\_ different ways.

4. What are the three states in which precipitation falls?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Give an example of liquid precipitation. \_\_\_\_\_

6. Give an example of freezing precipitation. \_\_\_\_\_

7. Give an example of frozen precipitation. \_\_\_\_\_

8. Draw and label a cold front. Describe the type of precipitation. (5 pts)

9. Draw and label a warm front. Describe the type of precipitation. (5 pts)

10. What shape does rain fall as? \_\_\_\_\_

11. Mid-level clouds have the prefix: \_\_\_\_\_

12. Clouds that have become saturated and ready to precipitate: \_\_\_\_\_

13. High clouds that are wispy are \_\_\_\_\_ clouds.

14. What is the difference in sleet and freezing rain?

- \_\_\_\_\_ 15. The process in which water changes from a liquid to gas is called
- a. precipitation.
  - b. condensation.
  - c. evaporation.
  - d. water vapor.
- \_\_\_\_\_ 16. What is the relative humidity of air at its dew point?
- a. 0%
  - b. 50%
  - c. 75%
  - d. 100%
- \_\_\_\_\_ 17. Which of the following is NOT a type of condensation?
- a. fog
  - b. cloud
  - c. snow
  - d. dew
- \_\_\_\_\_ 18. High clouds made of ice crystals are called \_\_\_\_\_ clouds.
- a. stratus
  - b. cumulus
  - c. nimbostratus
  - d. cirrus
- \_\_\_\_\_ 19. Large thunderhead clouds that produce precipitation are called \_\_\_\_\_ clouds.
- a. nimbostratus
  - b. cumulonimbus
  - c. cumulus
  - d. stratus
- \_\_\_\_\_ 20. Strong updrafts within a thunderhead can produce
- a. snow.
  - b. rain.
  - c. sleet.
  - d. hail.
- \_\_\_\_\_ 21. A maritime tropical air mass contains
- a. warm, wet air.
  - b. cold, moist air.
  - c. warm, dry air.
  - d. cold, dry air.
- \_\_\_\_\_ 22. A front that forms when a warm air mass is trapped between cold air masses and is forced to rise is a(n)
- a. stationary front.
  - b. warm front.
  - c. occluded front.
  - d. cold front.
- \_\_\_\_\_ 23. A severe storm that forms as a rapidly rotating funnel cloud is called a
- a. hurricane.
  - b. tornado.
  - c. typhoon.
  - d. thunderstorm.
- \_\_\_\_\_ 24. The lines connecting points of equal air pressure on a weather map are called
- a. contour lines.
  - b. highs.
  - c. isobars.
  - d. lows.
- \_\_\_\_\_ 25. What kind of weather does a stationary front bring?
- a. drizzly rain followed by clear weather
  - b. severe storms
  - c. many days of cloudy, wet weather
  - d. cold, dry weather

- \_\_\_\_\_ 26. If there is a tornado warning for your area, you should
- find a high place to stay.
  - go to a room with no windows.
  - cover your windows with plywood.
  - not listen to the radio.
- \_\_\_\_\_ 27. Which statement about tornadoes is correct?
- They are a very common part of thunderstorms.
  - Seventy-five percent of the world's tornadoes occur in the United States.
  - Their danger is mainly from the heavy rains they bring.
  - They are the strongest storms on Earth.
- \_\_\_\_\_ 28. A storm surge is a dangerous part of
- a tornado.
  - a thunderstorm.
  - the water cycle.
  - a hurricane.
- \_\_\_\_\_ 29. Which describes an altocumulus cloud?
- high, feathery cloud
  - puffy mid-level cloud
  - low storm cloud
  - high cloud made of ice crystals
- \_\_\_\_\_ 30. Isobars help meteorologists by
- creating an image of weather systems.
  - showing what form precipitation will take.
  - measuring wind speeds.
  - showing high and low pressure areas.
- \_\_\_\_\_ 31. Lightning is an electric discharge between a positively charged area and
- a rising air mass.
  - a source region.
  - another positively charged area.
  - a negatively charged area.
- \_\_\_\_\_ 32. Meteorologists track cyclones and anticyclones because they
- are dangerous forms of severe weather.
  - help predict stormy or clear weather.
  - help forecast weather weeks in the future.
  - give more accurate facts than fronts.
- \_\_\_\_\_ 33. Which statement about hail is correct?
- It is rain that falls through a layer of freezing air.
  - It may be sent up into the clouds many times.
  - It forms in winter in low stratus clouds.
  - It is a liquid form of precipitation.

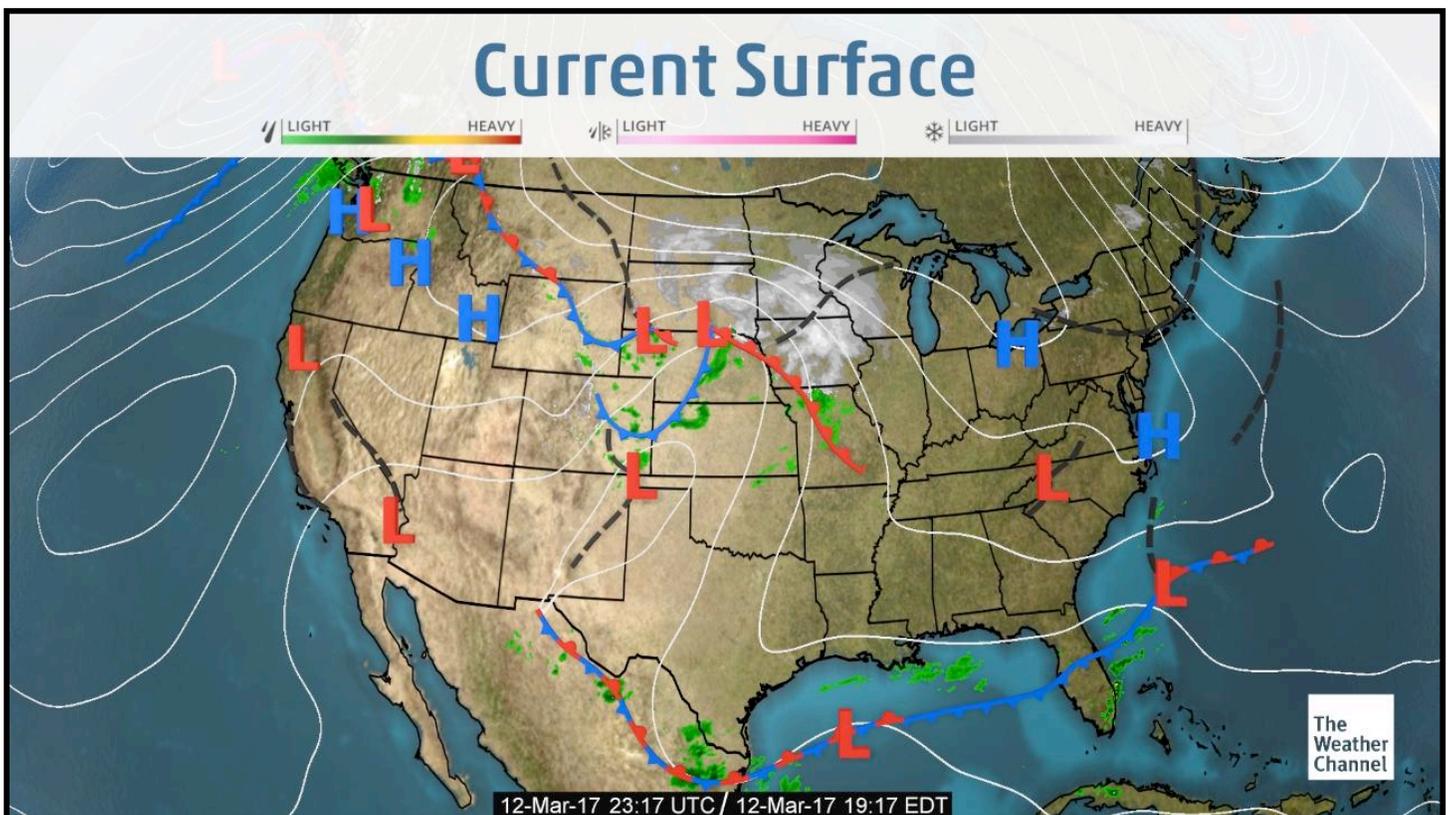
- \_\_\_\_\_ 34. A maritime polar air mass that forms over the North Pacific Ocean brings what kind of weather to the Pacific Coast?
- a. warm
  - b. dry
  - c. wet
  - d. extremely cold
- \_\_\_\_\_ 35. A windsock does NOT
- a. consist of a cone-shaped bag.
  - b. measure wind speed.
  - c. measure wind direction.
  - d. allow wind to pass through it.
- \_\_\_\_\_ 36. Isobars indicate
- a. air pressure.
  - b. rainfall.
  - c. snow.
  - d. wind speed.
- \_\_\_\_\_ 37. Which of the following does NOT collect weather-related data from the upper atmosphere?
- a. weather balloon
  - b. Doppler radar
  - c. psychrometer
  - d. weather satellite
- \_\_\_\_\_ 38. Unstable atmospheric conditions lead to the formation of lightning and thunder
- a. nimbostratus clouds.
  - b. altocumulus clouds.
  - c. altostratus clouds.
  - d. cumulonimbus clouds.
- \_\_\_\_\_ 39. Which of the following increases air's ability to hold water vapor?
- a. increase in wind speed
  - b. increase in temperature
  - c. decrease in temperature
  - d. decrease in air pressure

40. Explain the difference in a L (low pressure) and H (high pressure.) 10 pts

## MATCHING (2 PTS EACH)

- \_\_\_\_\_ 1. amount of water vapor in the air
- \_\_\_\_\_ 2. process in which liquid turns to vapor
- \_\_\_\_\_ 3. area of high pressure where air moves apart and sinks
- \_\_\_\_\_ 4. the temperature to which air must cool to be saturated
- \_\_\_\_\_ 5. process in which water vapor turns to liquid
- \_\_\_\_\_ 6. area of low pressure where air masses meet and rise
- \_\_\_\_\_ 7. area in which two types of air masses meet
- \_\_\_\_\_ 8. tracks the location, movement, and amount of precipitation
- \_\_\_\_\_ 9. consists of two thermometers
- \_\_\_\_\_ 10. measures air temperature
- \_\_\_\_\_ 11. measures wind speed
- \_\_\_\_\_ 12. measures air pressure

- A. dew point
- B. anticyclone
- C. humidity
- D. evaporation
- E. front
- F. condensation
- G. cyclone
- H. anemometer
- I. radar
- J. barometer
- K. psychrometer
- L. thermometer



Write a paragraph explaining the weather for the country according to the map on the previous page. Write about all the major developments on the weather map.