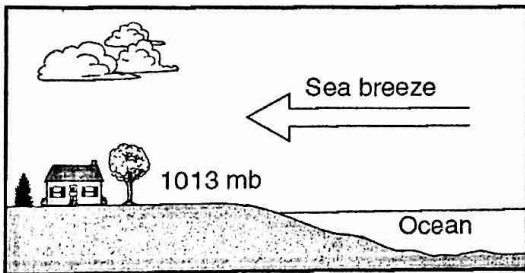


Name _____
Date _____ Per _____

Practice Quiz Questions Weather Variables; Pressure & Wind

- Which list correctly matches each instrument with the weather variable it measures?
 - wind vane—wind speed
thermometer—temperature
precipitation gauge—relative humidity
 - wind vane—wind direction
thermometer—dewpoint
psychrometer—air pressure
 - barometer—relative humidity
anemometer—cloud cover
precipitation gauge—probability of precipitation
 - barometer—air pressure
anemometer—wind speed
psychrometer—relative humidity
- Which weather change is most likely indicated by rapidly falling air pressure?
 - Humidity is decreasing.
 - Temperature is decreasing.
 - Skies are clearing.
 - A storm is approaching.
- The cross section below shows a sea breeze blowing from the ocean toward the land. The air pressure at the land surface is 1013 millibars.



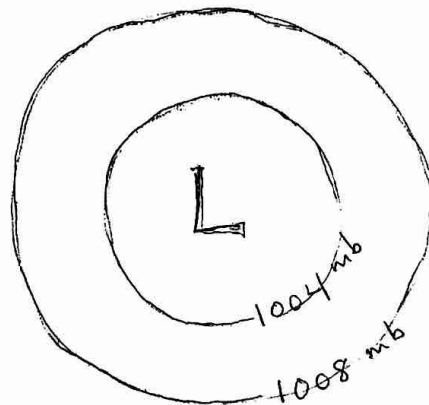
(Not drawn to scale)

The air pressure at the ocean surface a few miles from the shore is most likely

- | | |
|------------|------------|
| 1) 994 mb | 3) 1013 mb |
| 2) 1005 mb | 4) 1017 mb |
- Earth's surface winds generally blow from regions of higher
 - air temperature toward regions of lower air temperature
 - air pressure toward regions of lower air pressure
 - latitudes toward regions of lower latitudes
 - elevations toward regions of lower elevations

- Which weather condition most directly determines wind speeds at Earth's surface?
 - visibility changes
 - amount of cloud cover
 - air-pressure gradient
 - dewpoint differences
- Surface winds on Earth are primarily caused by differences in
 - air density due to unequal heating of Earth's surface
 - ocean wave heights during the tidal cycle
 - rotational speeds of Earth's surface at various latitudes
 - distances from the Sun during the year
- Air pressure is usually highest when the air is
 - warm and humid
 - warm and dry
 - cold and humid
 - cold and dry
- Which graph best represents the relationship between air temperature and air density in the atmosphere?
 -
 -
 -
 -

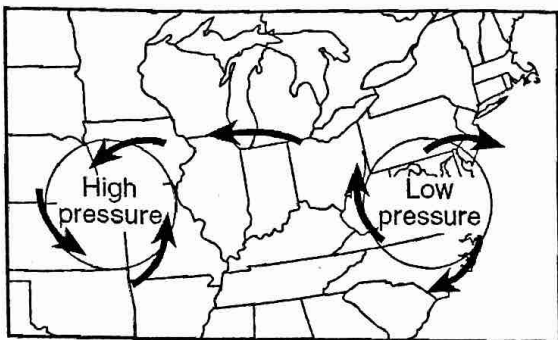
- A low-pressure system in the Northern Hemisphere has a surface air-circulation pattern that is
 - clockwise and away from the center
 - clockwise and toward the center
 - counterclockwise and away from the center
 - counterclockwise and toward the center



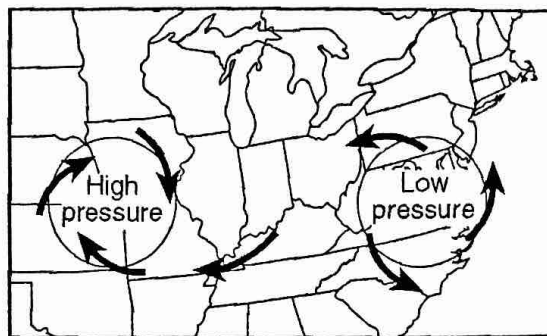
DRAW DIRECTION OF AIR CIRCULATION

10. Which map best represents the surface wind pattern associated with high-pressure and low-pressure systems in the Northern Hemisphere?

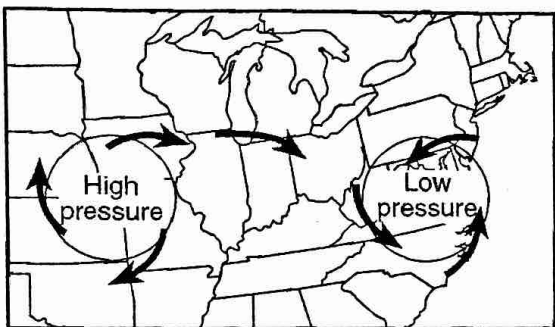
1)



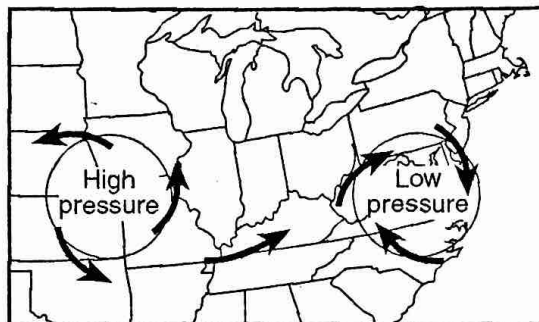
3)



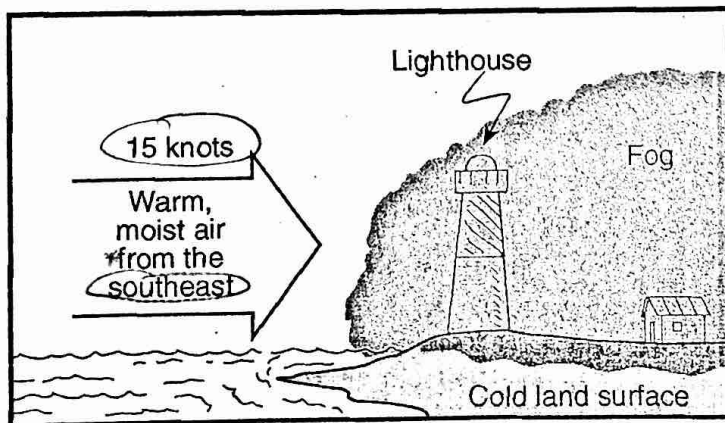
2)



4)



* The diagram below shows conditions that commonly cause fog to form over land in coastal areas.



A weather station at the lighthouse records a temperature of 36°F and an air pressure of 1016.4 mb. Using the proper weather map symbols, place the following information in the correct positions on the weather station model below.

- 11. • Present weather
- 12. • Dewpoint
- 13. • Air pressure
- 14. • Wind direction
- 15. • Wind speed

