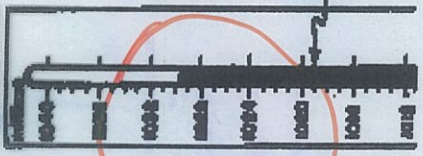


#3

What is the air pressure indicated by the diagram of the mercury barometer at the right?

AIR PRESSURE



- (1) 1028.1 mb
- (2) 1028.5 mb

- (3) 1029.5 mb
- (4) 1031.0 mb

#4

According to the Earth Science Reference Tables, an atmospheric pressure of 978 millibars is equal to

- (1) 28.76 inches of mercury
- (2) 28.88 inches of mercury
- (3) 28.92 inches of mercury
- (4) 29.00 inches of mercury

the Earth Science Reference Tables.

#5

What is the average atmospheric pressure at sea level?

- (1) 1.0 atmosphere
- (2) 2.0 atmospheres
- (3) 0.1 atmosphere
- (4) 4.0 atmospheres

On a July afternoon in New York State, the

#6

barometric pressure is 29.85 inches and falling. This reading most likely indicates

- (1) an approaching storm
- (2) rapidly clearing skies
- (3) continuing fair weather
- (4) gradually improving conditions

C. Humidity - the amount of moisture in air.  
water in the form of a gas.  
precipitation

- Water vapor is grams of water vapor in 1 cubic meter of air. This is not directly measured.
- Why is water vapor important?
- There are two ways to express humidity:
  - i. Absolute humidity is the number of grams of water vapor in 1 cubic meter of air. This is not directly measured.
  - ii. Relative humidity is the ratio of the water vapor actually in the air compared to the maximum amount of water vapor that the air can hold at that temperature. (The air is holding \_\_\_% of the water vapor that it can hold.)

★ Warm air can hold more water vapor.  
 ★ Cold air can hold less water vapor.

- 100% relative humidity = rain or fog
- 0% relative humidity = desert
- Relative humidity can be calculated by using a slip psychrometer
  - i. Wet bulb measures evaporation temperature
  - ii. Dry bulb measures air temperature