Relative Humidity/Dew Point Calculation

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_



The diagram to the right shows a sling psychrometer.

1.\_\_\_\_\_\_\_\_\_\_Based on the dry-bulb and wet-bulb temperatures, what is the dew point?

1. 5oC (3) 14oC
2. 12oC (4) 16oC

2.\_\_\_\_\_\_\_\_\_\_What is the dewpoint temperature when the relative humidity is 30% and the air temperature is 20oC?

1. -28oC (3) 6oC
2. 2oC (4) 9oC

3.\_\_\_\_\_\_\_\_\_\_On a cold winter day, the air temperature is 2oC and the wet-bulb temperature is -1oC. What is the relative humidity at this location?

The weather instrument to the right is used to determine dewpoint and relative humidity.

4.\_\_\_\_\_\_\_\_\_\_Based on the temperatures shown, the approximate dewpoint and relative humidity are:

1. -19oC and 4% (3) 8oC and 40%
2. -5oC and 25% (4) 12oC and 53%

5.\_\_\_\_\_\_\_\_\_What is the relative humidity if the dry-bulb temperature is 22oC and the wet-bulb temperature is 17oC?

 (1) 5% (2) 14% (3) 60% (4) 68%

6.\_\_\_\_\_\_\_\_\_\_A student uses a sling psychrometer to measure the humidity of the air. If the relative humidity was 65% and the dry-bulb temperature was 10oC, what was the wet-bulb temperature?

 (1) 5oC (2) 7oC (3) 3oC (4) 10oC

The weather instrument shown to the right can be used to determine dewpoint.

7.\_\_\_\_\_\_\_\_\_\_Based on the values shown, the dewpoint is

 (1) -5oC (3) 8oC

 (2) 2oC (4) 33oC