

1-Locate the dry bulb temperature

2-Locate the difference between the wet-bulb and dry-bulb temperature at the top of the chart

3-Find the point where the horizontal line from the dry-bulb reading meets the vertical line from the difference between the wet and dry-bulb readings.

4-The value is the dew point in degrees Celsius.

Dewpoint Temperatures (°C)

Dry-Bulb Temperature (°C)	Difference Between Wet-Bulb and Dry-Bulb Temperatures (C°)															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
-20	-20	-33														
-18	-18	-28														
-16	-16	-24														
-14	-14	-21	-36													
-12	-12	-18	-28													
-10	-10	-14	-22													
-8	-8	-12	-18	-29												
-6	-6	-10	-14	-22												
-4	-4	-7	-12	-17	-29											
-2	-2	-5	-8	-13	-20											
0	0	-3	-6	-9	-15	-24										
2	2	-1	-3	-6	-11	-17										
4	4	1	-1	-4	-7	-11	-19									
6	6	4	1	-1	-4	-7	-13	-21								
8	8	6	3	1	-2	-5	-9	-14								
10	10	8	6	4	1	-2	-5	-9	-14	-28						
12	12	10	8	6	4	1	-2	-5	-9	-16						
14	14	12	11	9	6	4	1	-2	-5	-10	-17					
16	16	14	13	11	9	7	4	1	-1	-6	-10	-17				
18	18	16	15	13	11	9	7	4	2	-2	-5	-10	-19			
20	20	19	17	15	14	12	10	7	4	2	-2	-5	-10	-19		
22	22	21	19	17	16	14	12	10	8	5	3	-1	-5	-10	-19	
24	24	23	21	20	18	16	14	12	10	8	6	2	-1	-5	-10	-18
26	26	25	23	22	20	18	17	15	13	11	9	6	3	0	-4	-9
28	28	27	25	24	22	21	19	17	16	14	11	9	7	4	1	-3
30	30	29	27	26	24	23	21	19	18	16	14	12	10	8	5	1

Examples:

1. What is the approximate dew point temp. if the dry-bulb temp. is 22 °C and the wet-bulb temp. is 12°C?

Dry= _____ Dew point= _____

Wet= _____

Difference= _____

2. Using the data from question 1, calculate the relative humidity of the air.

3. What is the approximate dew point temp. if the dry-bulb temp. is 10°C and the difference between the wet-bulb and dry-bulb temp. is 2°C?

4. Using the data from question 3, calculate the relative humidity of the air.

5. What is the relationship between dew point temperature and relative humidity? Look at both tables together!!

As dew point temperature \uparrow relative humidity _____ .

6. If the amount of water vapor in the air \uparrow , the dew point temperature of the air will _____ .

7. According to the ESRT, when the dew point temperature and the air temperature are the same, relative humidity is _____ %.

8. As the dew point and the air temperature get closer together, the chance that rain will occur _____ (Increases / Decreases / Remains the same)

9. If the dew point temperature is 15°C and the dry bulb temperature is 20°C, what is the difference between wet and dry bulb temperatures?

10. Using your data from question 10, what is the relative humidity of the air at 15°C?

11. If the air temperature is 20°C, which dew point temperature would indicate the highest water vapor content?

- a. 0°C b. 8°C c. 18°C

12. The dry bulb temperature is 20°C. The wet bulb temperature is 17°C. What is the dew point temperature and relative humidity? (use the appropriate units!) _____