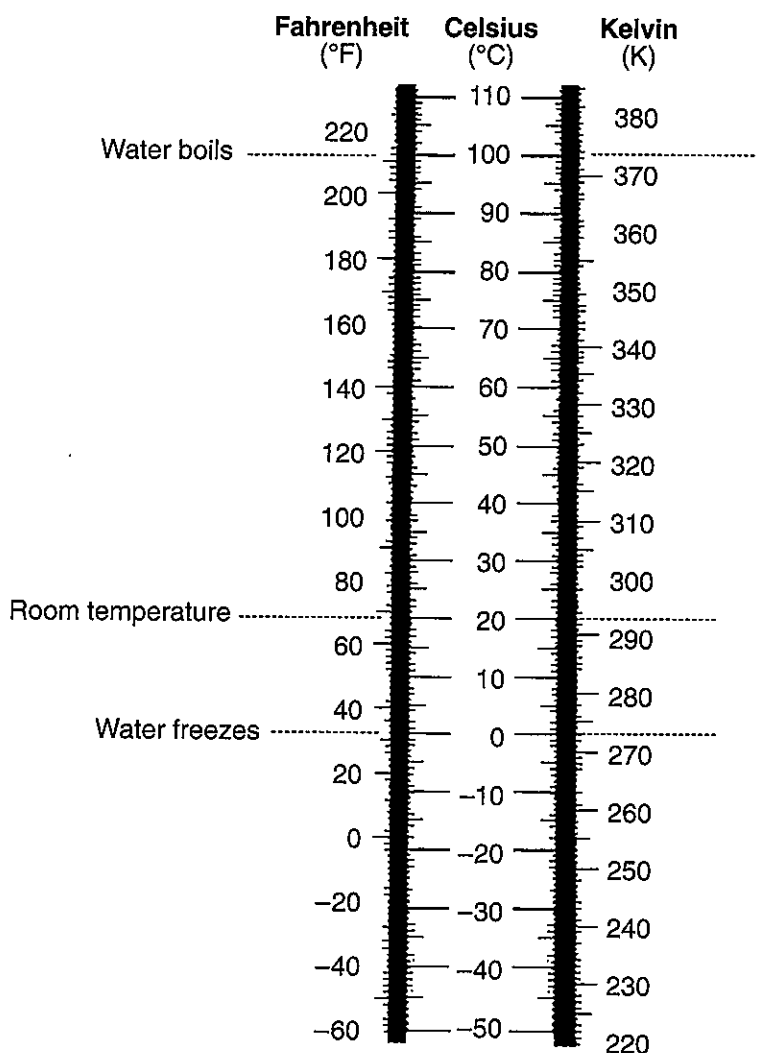


# Temperature



## Overview:

We use the Fahrenheit scale, while all other countries use the Celsius scale. The Kelvin scale is mostly used by research scientists. The Fahrenheit and Celsius readings have units of °F and °C respectively. Readings in the Kelvin scale are assigned the letter K. All students should know the freezing point of water and boiling point of water on the Fahrenheit and Celsius scales. These readings are noted on this chart. Take time to learn them.

## The Temperature Scales:

The calibration of each scale must be known. Each line on the Fahrenheit scale equals two degrees, while each line on the Celsius and Kelvin scale represents one degree. Knowing this, what is the boiling point of water on each scale at sea level? If done correctly, water boils at 212°F, 100°C and 373 K.

## Additional Information:

- Temperature is measured in degrees, while heat is measured in joules.
- As altitude increases, the boiling point temperature of water decreases because of a decrease in atmospheric pressure.

— Set 1 —

1. The highest air temperature ever recorded in Albany, New York, was 104°F, which occurred on July 4, 1911. This temperature is equal to

- (1) 35°C
- (2) 40°C
- (3) 45°C
- (4) 50°C

1 \_\_\_\_\_

2. At what temperature would water freeze on the Fahrenheit and Celsius temperature scales respectively?

- (1) 30°F and 0°C
- (2) 32°F and 0°C
- (3) 0°F and 32°C
- (4) 33°F and 1°C

2 \_\_\_\_\_

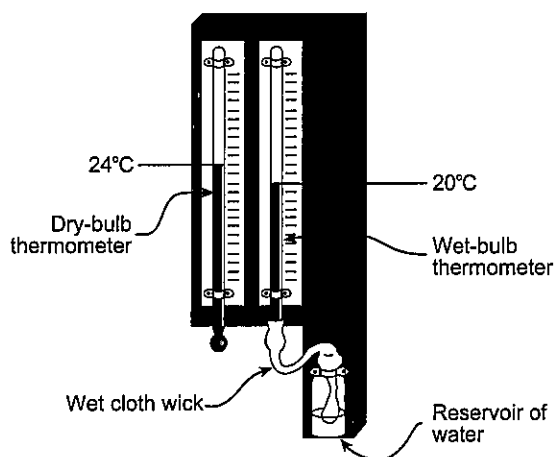
3. The human body temperature is 98.6°F. Give the human body temperature in the Celsius and Kelvin temperature scales.

\_\_\_\_\_ °C      \_\_\_\_\_ K

4. At what temperature are the Celsius and Fahrenheit scale readings the same?

\_\_\_\_\_

— Set 2 —



5. What would the dry-bulb and wet-bulb temperatures be when converted to Fahrenheit readings?

- (1) Dry-bulb — 68°F  
Wet-bulb — 76°F
- (2) Dry-bulb — 73°F  
Wet-bulb — 64°F
- (3) Dry-bulb — 76°F  
Wet-bulb — 68°F
- (4) Dry-bulb — 296°F  
Wet-bulb — 292°F

5 \_\_\_\_\_

6. Which scale has 100 divisions from the temperature when water freezes to the temperature when water boils?

\_\_\_\_\_

7. What is the room temperature in all 3 temperature scales?

\_\_\_\_\_ °F      \_\_\_\_\_ °C      \_\_\_\_\_ K

8. Give the temperature that ice melts in all 3 temperature scales?

\_\_\_\_\_ °F      \_\_\_\_\_ °C      \_\_\_\_\_ K