

12.1 Fahrenheit and Celsius

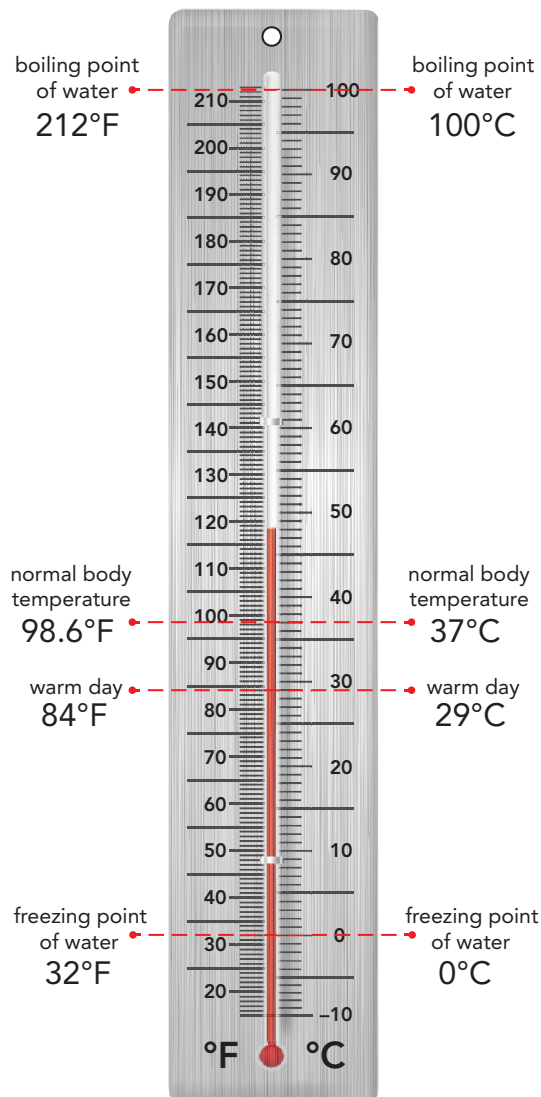
Construct Meaning

The marks on a ruler show units of length. The lines on a thermometer show degrees. A **degree** is a unit used for measuring temperature. On some thermometers, every degree is marked. On others, the degrees might be marked by 2s or 5s or 10s.

The customary unit for measuring temperature is the **degree Fahrenheit** ($^{\circ}\text{F}$). Find the $^{\circ}\text{F}$ scale on the thermometer. The metric unit for measuring temperature is the **degree Celsius** ($^{\circ}\text{C}$). Find the $^{\circ}\text{C}$ scale on the thermometer.

The thermometer shows normal body temperature as 98.6°F . It also shows it as 37°C . Does this mean that your body temperature drops when measured in Celsius degrees? No. It stays the same; the scales are different.

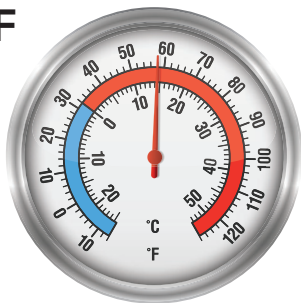
Find the temperature in your classroom. What is the temperature in Fahrenheit degrees? What is it in Celsius degrees?



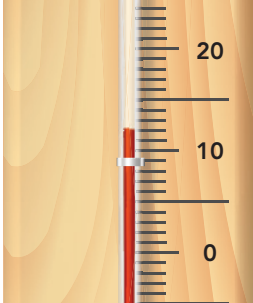
Check Understanding

Write the temperature shown.

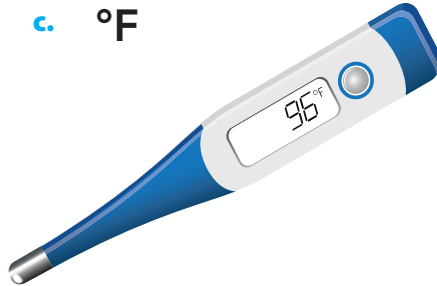
a. $^{\circ}\text{F}$



b. $^{\circ}\text{C}$



c. $^{\circ}\text{F}$



Practice

Choose the more reasonable temperature on the Fahrenheit scale.

1. a swimming pool

35°F or 72°F

2. a snowman

78°F or 30°F

3. a bowl of soup

182°F or 46°F

Choose the more reasonable temperature on the Celsius scale.

4. a cold glass of milk

6°C or 25°C

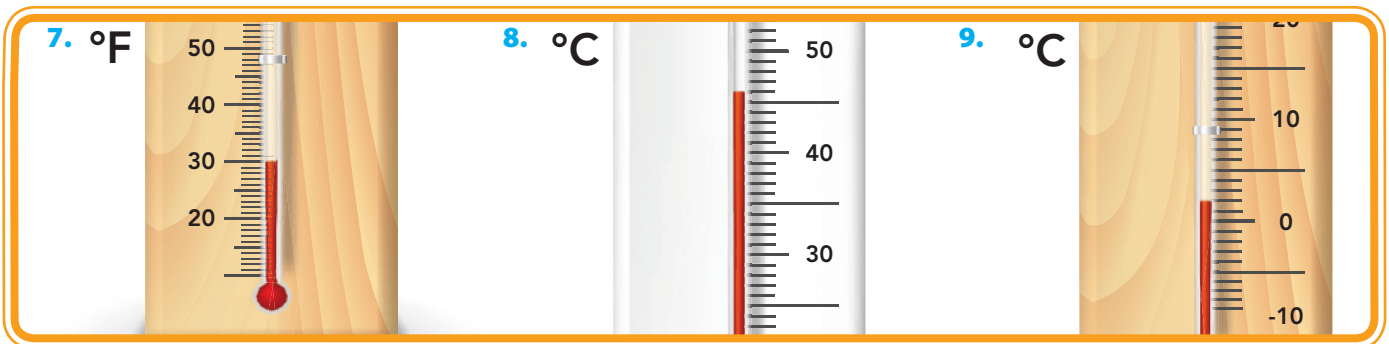
5. a cup of hot chocolate

30°C or 85°C

6. a hot bath

45°C or 89°C

Write the temperature shown.



Find the difference between the high and low temperature for each city.

city	high	low	difference
New York	62°F	34°F	10. _____
Atlanta	86°F	69°F	11. _____
Dallas	84°F	63°F	12. _____
Denver	75°F	59°F	13. _____

Apply

14. At 9:00 AM it was 34°C. It warmed up by 14°C in the afternoon. It then cooled off by 22°C by 9:00 PM. What was the temperature at 9:00 PM?
15. Would a room temperature of 59°F be too warm or too cool?
16. It is 48°F outside. Would it be more reasonable to play a soccer game or to have a pool party?

Challenge

17. Greenland Ranch is in Death Valley, California. The temperature there was once measured at 134°F. Oymyakon is a city in Russia. It got as cold as -96°F. What is the range of the two cities' temperatures?