

Name: _____

Section: _____

Comparing Fahrenheit, Celsius, and Kelvin



Directions: Use your knowledge of the three temperature scales and the conversion equations to answer the following questions.

Show your work!

1. At a temperature of -196°C , liquid nitrogen can rapidly freeze living tissue and a variety of other substances. How many degrees Fahrenheit is liquid nitrogen?

2. Absolute zero (0 K) is the lowest possible temperature where, in theory, the motion of matter stops. What is this temperature in degrees Fahrenheit?

3. In 1983, the coldest recorded temperature on Earth, -128.6°F , was measured in Vostok Station, Antarctica. What would be the corresponding temperatures on the other two scales?

4. The fastest recorded temperature rise occurred in Spearfish, South Dakota, where the temperature rose by 49°F in two minutes. What would be the corresponding temperatures on the other two scales?

5. With a high of 35, the first day of spring was more like the first day of winter. Which temperature scale is being used? What would be the corresponding temperatures on the other two scales?
6. The average human body temperature is 310. Which temperature scale is being used? What would be the corresponding temperatures on the other two scales?
7. Death Valley, California reached a record high temperature of 56.7 back in 1913. Which temperature scale is being used? What would be the corresponding temperatures on the other two scales?
8. Which of the following dwarf planets has the lowest mean surface temperature?
- a. Ceres: -106°C
 - b. Pluto: -364°F
 - c. Haumea: 50.15 K

