

NAME:

HONORS CHEMISTRY

SECTION:

TEMPERATURE CONVERSIONS

Converting from Celsius to Kelvin:

Converting from Kelvin to Celsius:

Complete the following chart. Pay attention to significant figures!

°C	K
0. °C	
	485.6 K
100. °C	
	70 K
-273 °C	
35 °C	
	3200 K
-110°C	
	299 K
511.14 °C	

**Extension problems**

The Fahrenheit and Celsius temperature scales have different size units and different zero points!  
Fahrenheit Celsius Conversions

$$T_F = 1.80 T_C + 32$$

$$T_C = \frac{T_F - 32}{1.80}$$

Problems Show all your work in the space provided!

1. You're traveling in Europe and get sick. Your temperature is  $39^{\circ}\text{C}$ . What is your temperature on the Fahrenheit scale?
2. Pork is considered to be well done when its internal temperature reaches  $160^{\circ}\text{F}$ . What is this temperature on the Celsius scale?
3. The boiling point of nitrogen is  $-196^{\circ}\text{C}$ . What is this temperature on the Fahrenheit scale?
4. Ray Bradbury wrote a book titled Fahrenheit 451. What is this temperature on the Celsius scale?
5. Express the temperature  $-40^{\circ}\text{F}$  on the Celsius scale.

Answers
1. $102^{\circ}\text{F}$
2. $71^{\circ}\text{C}$
3. $-321^{\circ}\text{F}$
4. $253^{\circ}\text{C}$