

Name: _____

Period: ____

Temperature Conversions

$$K = C + 273$$

$$C = \frac{5}{9} (F - 32)$$

$$F = \frac{9}{5} (C) + 32$$

(1) Complete the following table.

| Celsius (°C) | Fahrenheit (F) | Kelvin (K) |
|--------------|----------------|------------|
| | 100 | |
| -35 | | |
| | | 298 |
| | -62 | |
| 115.2 | | |
| | | 450 |
| 28.8 | | |
| | 212 | |
| | | 60.5 |

(2) What is the temperature in Fahrenheit of a cup of coffee that is 80 °C?

(3) What is the temperature in Celsius of a 400 F oven?

(4) What is the coldest temperature possible in Kelvin? What temperature in Fahrenheit and in Celsius is this equivalent to?

Answers:

(1)

| Celsius (°C) | Fahrenheit (F) | Kelvin (K) |
|--------------|----------------|------------|
| 37.8 | 100 | 310.8 |
| -35 | -31 | 238 |
| 25 | 77 | 298 |
| -52.2 | -62 | 220.8 |
| 115.2 | 239.4 | 388.2 |
| 177 | 350.6 | 450 |
| 28.8 | 83.8 | 301.8 |
| 100 | 212 | 373 |
| -212.5 | -350.5 | 60.5 |

(2) 176 F

(3) 204.4 °C

(4) -459.4 F and -273 °C