

## Temperature Conversion

**To convert between Fahrenheit (°F) and degrees Celsius (°C):**

$$T_c = \frac{5}{9} \times (T_f - 32)$$

$$T_f = \left(\frac{9}{5}\right) \times T_c + 32$$

Where:  $T_c$  is temperature in Celsius

$T_f$  is temperature in Fahrenheit

**To convert between degrees Fahrenheit (°F) and Kelvin (K):**

$$T_f = \left(\frac{9}{5} \times (T_k - 273.15)\right) + 32$$

$$T_K = \left(\frac{5}{9} \times (T_f - 32)\right) + 273.15$$

Where:  $T_f$  is temperature in Fahrenheit

$T_K$  is temperature in Kelvin

**To convert between degrees Fahrenheit (°F) and Rankine (R):**

$$T_f = T_R - 459.67$$

$$T_R = T_f + 459.67$$

Where:  $T_f$  is temperature in Fahrenheit

$T_R$  is temperature Rankine

**To convert between degrees Celsius (°C) and Kelvin (K):**

$$T_c = T_K - 273.15$$

$$T_K = T_c + 273.15$$

Where:  $T_c$  is temperature in Celsius

$T_K$  is temperature in Kelvin

**To convert between degrees (°C) and Rankine (R):**

$$T_c = \frac{5}{9} \times ((T_R - 459.67) - 32)$$

$$T_R = \left( \frac{9}{5} \times T_c + 32 \right) + 459.67$$

Where:  $T_c$  is temperature in Celsius

$T_R$  is temperature in Rankine

**To convert between degrees Kelvin (K) and Rankine (R):**

$$T_K = \left( \frac{5}{9} \times ((T_R - 459.67) - 32) \right) + 273.15$$

$$T_R = \left( \frac{9}{5} \times (T_K - 273.15) + 32 \right) + 459.67$$

Where:  $T_K$  is temperature in Kelvin

$T_R$  is temperature in Rankine