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):

\[ T_C = \frac{5}{9} \times \left( \left( T_R - 459.67 \right) - 32 \right) \]

\[ T_R = \left( \frac{9}{5} \times T_C + 32 \right) + 459.67 \]

Where: \( T_C \) is temperature in Celsius  
\( T_R \) is temperature in Rankine

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

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

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

Where: \( T_K \) is temperature in Kelvin  
\( T_R \) is temperature in Rankine