Temperature Conversion

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

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

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

Where: \( T_c \) is temperature in Celsius
\( T_f \) is temperature in Fahrenheit

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

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

\[ T_k = \left( \frac{5}{9} \times (T_f - 32) \right) + 273.16 \]

Where: \( T_f \) is temperature in Fahrenheit
\( T_k \) is temperature in Kelvin

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

\[ T_f = T_R - 459.69 \]

\[ T_R = T_f + 459.69 \]

Where: \( T_f \) is temperature in Fahrenheit
\( T_R \) is temperature Rankine
To convert between degrees Celsius (°C) and Kelvin (K):

\[ T_c = T_K - 273.16 \]

\[ T_K = T_c + 273.16 \]

Where: \( T_c \) is temperature in Celsius  
\( T_K \) is temperature in Kelvin

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

\[ T_C = \frac{5}{9} \times ((T_R - 459.69) - 32) \]

\[ T_R = \left( \frac{9}{5} \times T_c + 32 \right) + 459.69 \]

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

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

\[ T_K = \left( \frac{5}{9} \times ((T_R - 459.69) - 32) \right) + 273.16 \]

\[ T_R = \left( \frac{9}{5} \times (T_K - 273.16) + 32 \right) + 459.69 \]

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