Formulations:
Temperatures in °C, altitudes in feet,speeds in knots.

total air temperature (TAT):

$$TAT = \left(1 + 0.2 \cdot MACH^2\right)\left(OAT + 273.15\right) - 273.15$$

outside air temperature (OAT) or static air temperature (SAT):

$$OAT = \frac{TAT + 273.15}{1 + 0.2 \cdot MACH^2} - 273.15$$

pressure correction (PCORR):

$$PCORR = \left(1 - \frac{3.566 \cdot ALTITUDE}{518.67 \cdot 1000}\right)^{-5.2563}$$

mach number (MACH):

$$MACH = \sqrt{5 \cdot \left(\left(PCORR \cdot \left(\left(1 + 0.2 \cdot \left(\frac{IAS}{661.5}\right)^2\right)^{\frac{7}{2}} - 1\right) + 1\right)^{\frac{2}{7}} - 1\right)}$$

indicated airspeed (IAS) (inverse formulation of MACH):

$$IAS = 661.5 \cdot \sqrt{5 \cdot \left(\left(1 + \frac{\left(0.2 \cdot MACH^2\right)^{\frac{7}{2}} - 1}{PCORR}\right)^{\frac{2}{7}} - 1\right)}$$

true airspeed (TAS):

$$TAS = 39 \cdot MACH \sqrt{\frac{TAT + 273.15}{1 + 0.2 \cdot MACH^2}}$$

mach number (MACH) (inverse formulation of TAS):

$$MACH = \frac{1}{\sqrt{\left(\frac{39}{TAS}\right)^2 \cdot \left(TAT + 273.15\right) - 0.2}}$$

true airspeed (TAS):

$$TAS = 39 \cdot MACH \sqrt{OAT + 273.15}$$

mach number (MACH) (inverse formulation of TAS):

$$MACH = \frac{TAS}{39\sqrt{OAT + 273.15}}$$