

Examples 1.1 – Average Rate of Change

Let $T(t)$ be the air temperature in degrees Fahrenheit between 6 A.M. and 8 P.M. where t is hours after noon. Suppose $T(2) = 80$ and $T(6) = 62$.

1. Sketch a graph of the given data points and mark and label the net changes ΔT and Δt .

Solution:



2. Describe the meanings of the expressions $T(2) = 80$ and $T(6) = 62$ in words with units.

Solution:

3. Find ΔT and $\Delta T/\Delta t$ on the interval $[2, 6]$, and describe the answers in words with units.

Solution:

4. What can be said about the temperature at 4:00 P.M.?

Solution: