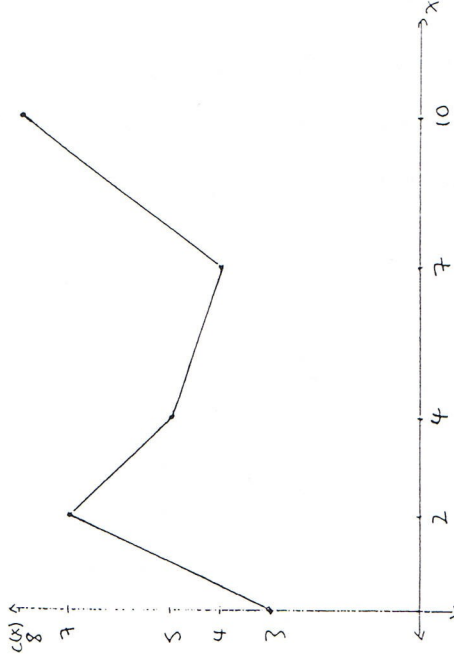


Exercise

Consider the following function of one variable:

$$c(x) = \begin{cases} 2x + 3, & 0 \leq x < 2 \\ 9 - x, & 2 \leq x < 4 \\ \frac{19-x}{3}, & 4 \leq x < 7 \\ \frac{4x-16}{3}, & 7 \leq x \leq 10. \end{cases}$$

A graph of the function is shown below.



Formulate a Linear Mixed Integer Program which models the problem of minimizing $c(x)$ over all $x \in [0, 10]$.