

Problem 12

In each of Problems 7 through 12:

- (a) Sketch the graph of the given function.
- (b) Express $f(t)$ in terms of the unit step function $u_c(t)$.

$$f(t) = \begin{cases} t, & 0 \leq t < 2, \\ 2, & 2 \leq t < 5, \\ 7 - t, & 5 \leq t < 7, \\ 0, & t \geq 7. \end{cases}$$