P1 Concept: Laplace Transform from tables given formula

Find: The Laplace Transform of **a.** (2t + 4)u(t)

**b.**  $(4+3e^{-2t})u(t)$ 

**Hints:** • Distributive property of multiplication and linearity property of LT

**P2** Concept: Forward Laplace Transform from tables given formula

Find: The Laplace Transform of **a.** (t-2)u(t-2)

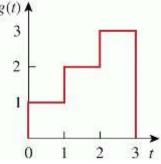
**b**. (t-5)u(t-2)

**Hints:** • Time shift property. All t's must be delayed by same amount.

**P3** Concept: Forward Laplace Transform from tables given graph  $g(t) \neq 0$ 

**Find:** The Laplace Transform of g(t) (to the right)

**Hints:** • Build from unit step



**P4** Concept: Use Initial and Final Value Theorem

Find: Given  $F(s) = \frac{5(s+1)}{(s+2)(s+3)}$  find **a.** f(0) **b.**  $f(\infty)$ 

**Hints:** • Don't forget to multiply by *s* 

•  $\infty/\infty$  is *not* an answer