Shepley L. Ross Introduction to Ordinary Differential Equations

Chapter 9. The Laplace Transform

9.2. The Inverse Transform and the Convolution

9.2.A.1. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{2}{s} + \frac{3}{s-5}$.

9.2.A.5. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{5}{(s-2)^4}$.

9.2.A.9. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{3s}{s^2 - 4}$.

9.2.A.13. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{5s}{s^2 + 4s + 4}$.

9.2.A.19. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{s+3}{(s+4)^2}$.

9.2.A.23. Use Table 9.1 to find
$$\mathcal{L}^{-1}{F(s)}$$
 for $F(s) = \frac{10s + 23}{s^2 + 7s + 12}$.

9.2.B.1. Find
$$\mathcal{L}^{-1}{H(s)}$$
 using the convolution and Table 9.1 for $H(s) = \frac{1}{s^2 + 5s + 6}$.

9.2.B.3. Find
$$\mathcal{L}^{-1}{H(s)}$$
 using the convolution and Table 9.1 for $H(s) = \frac{1}{s(s^2+9)}$.