Exercise 3

In Exercises 1 through 5, use the method described in Sec. 88 and illustrated in Example 1, Sec. 89, to find the function $f(t)$ corresponding to the given function $F(s)$.

$$F(s) = \frac{12}{s^3 + 8}.$$

$$\textit{Ans. } f(t) = e^{-2t} + e^{t}(\sqrt{3}\sin\sqrt{3}t - \cos\sqrt{3}t).$$