Even Non Bold Answers (up to end of semester)

§ 7.2

12) $10\cos(4t)$

16) $\cos(\sqrt{2}t) + \frac{1}{\sqrt{2}}\sin(\sqrt{2}t)$

18) $-\frac{1}{4} + \frac{5}{4}e^{4t}$

24) $\frac{1}{2} - e^{t} - \frac{1}{3}e^{-t} + \frac{5}{6}e^{2t}$

26) $-\frac{1}{4}e^{-2t} + \frac{1}{4}\cos(2t) + \frac{1}{4}\sin(2t)$

42) $y(t) = \frac{1}{10}e^{t} - \frac{1}{10}\cos(3t) - \frac{1}{30}\sin(3t)$

§ 7.3

6) $\frac{2}{(s-2)^3} = \frac{2}{(s-2)^2} + \frac{1}{s-2}$

10) $\frac{9}{s-3} - \frac{4}{(s-3)^2} + \frac{5}{(s-3)^2+1/4}$

12) $\frac{1}{6}e^{t}t^3$

20) $te^{-2t} - t^2e^{-2t} - \frac{1}{6}t^3e^{-2t}$

48) $-u(t-2) - (t-2)u(t-2) + e^{t-2}u(t-2)$

56) $\frac{1}{s} - \frac{e^{-4s}}{s} + \frac{e^{-5s}}{s}$

§ 7.4

8) $\frac{(s+3)^2 - 9}{[(s+3)^2+9]^2}$

30) $-\frac{1}{s}\cdot\frac{-2s}{(s^2+1)^2} = \frac{2}{(s^2+1)^2}$

38) $\frac{1}{a^2}\left(ate^{at} - e^{at} + 1\right)$