Even Non-Bold Answers

§4.1

26) $y = c_1 e^{\frac{x}{2}} + c_2 x e^{\frac{x}{2}}$

§4.3 2nd - order DE

2) $y = c_1 e^{6x} + c_2 e^{-6x}$

6) $y = c_1 e^{5x} + c_2 x e^{5x}$

32) $y = -\frac{7}{4} e^{-\frac{x}{2}} + \frac{11}{4} e^{\frac{3x}{2}}$

34) $y = 5e^x + 5x e^x$

§4.3 higher order DE

16) $y = c_1 e^x +$

$e^{-\frac{x}{2}}\left[c_2 \cos\left(\frac{\sqrt{3}}{2}x\right) + c_3 \sin\left(\frac{\sqrt{3}}{2}x\right)\right]$

§4.4

8) $y = c_1 e^{\frac{3x}{2}} + c_2 e^{-\frac{x}{2}} - \frac{19}{425}\cos 2x$

$\qquad - \frac{8}{425}\sin 2x$

18)
$y = e^x(c_1 \cos x + c_2 \sin x) +$

$\qquad \frac{7}{5} e^{2x}\cos x - \frac{1}{5} e^{2x}\sin x.$

§4.6

2) $y = c_1 \cos x + c_2 \sin x$
$\qquad - \cos x \ln|\sec x + \tan x|$

12) $y = c_1 e^x + c_2 x e^x$
$\qquad -\frac{1}{2} e^x \ln(1+x^2) + x e^x \tan^{-1} x$

22)
$y = e^{2x} - 2x e^{2x} + e^{2x}(x^4 - x^3)$

$\quad = e^{2x}(x^4 - x^3 - 2x + 1).$