

## Assignment 5 answers

Page 674, #10.  $y(x) = C_1x^5 + C_2x^{-1}$

Page 674, #24.  $y(x) = |x|^{-\frac{1}{2}} \left( C_1 \cos \left( \frac{\sqrt{3}}{2} \ln |x| \right) + C_2 \sin \left( \frac{\sqrt{3}}{2} \ln |x| \right) \right)$

Page 207, #22.  $y(t) = -\frac{9}{4}e^{-2t} - \frac{17}{4}te^{-2t} + \frac{5}{4} - \frac{1}{4}t$

Page 207, #32.  $y_p(t) = \frac{t}{2}e^{-t} - t$

Page 214, #10.  $y_p(t) = \tan t \sin t - \frac{1}{2} \sec t$  (there are several other equivalent answers)