Quiz 2 Feb 19, 2016

[10] 1.) Given that  $y(x) = x^{\frac{3}{2}}$  and  $y(x) = \frac{1}{x}$  are solutions to  $2x^2y'' + xy' - 3y = 0$ , state the general solution to this 2nd order homogeneous linear differential equation:

[10] 2.) Solve:  $y' = y \sin(x) + y$ .