Math 3280 Worksheet 7: Euler's Method

Group members (2 to 4): _____

(1) Use Euler's method to estimate $y(1)$ if $y(0) = 1$ and $\frac{dy}{dx} = \frac{y}{2-x} + x^2$, using 1, 2, and 4 steps.

(2) Find the exact value of $y(1)$ by solving the initial value problem (note that the ODE is linear).