25.1 Solve the following initial value problem over the interval from $t = 0$ to 2 where $y(0) = 1$. Display all your results on the same graph.

$$\frac{dy}{dt} = yt^2 - 1.1y$$

(a) Analytically.
(b) Euler’s method with $h = 0.5$ and 0.25.
(c) Midpoint method with $h = 0.5$.
(d) Fourth-order RK method with $h = 0.5$.

25.4 Solve the following problem with the fourth-order RK method:

$$\frac{d^2y}{dx^2} + 0.6 \frac{dy}{dx} + 8y = 0$$

where $y(0) = 4$ and $y'(0) = 0$. Solve from $x = 0$ to 5 with $h = 0.5$. Plot your results.