CS 374 : Computational and Numerical Methods

Set 16

Runge-Kutta Method

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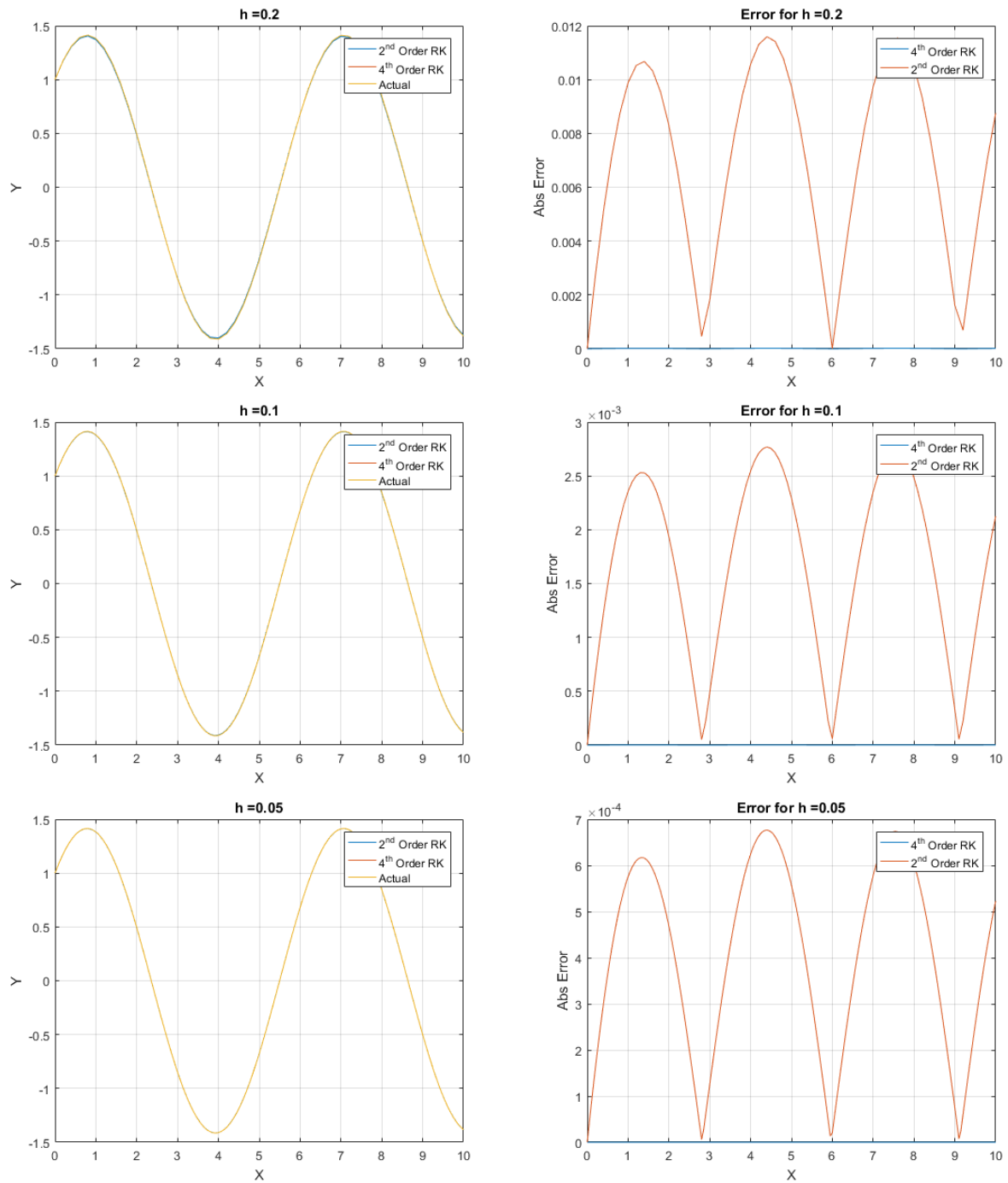# 1 $Y'(X) = -Y(X) + 2\cos X$ **with** $Y(0) = 1$

Figure 1: Comparison of the First Order and the Second Order Runge Kutta Method Method

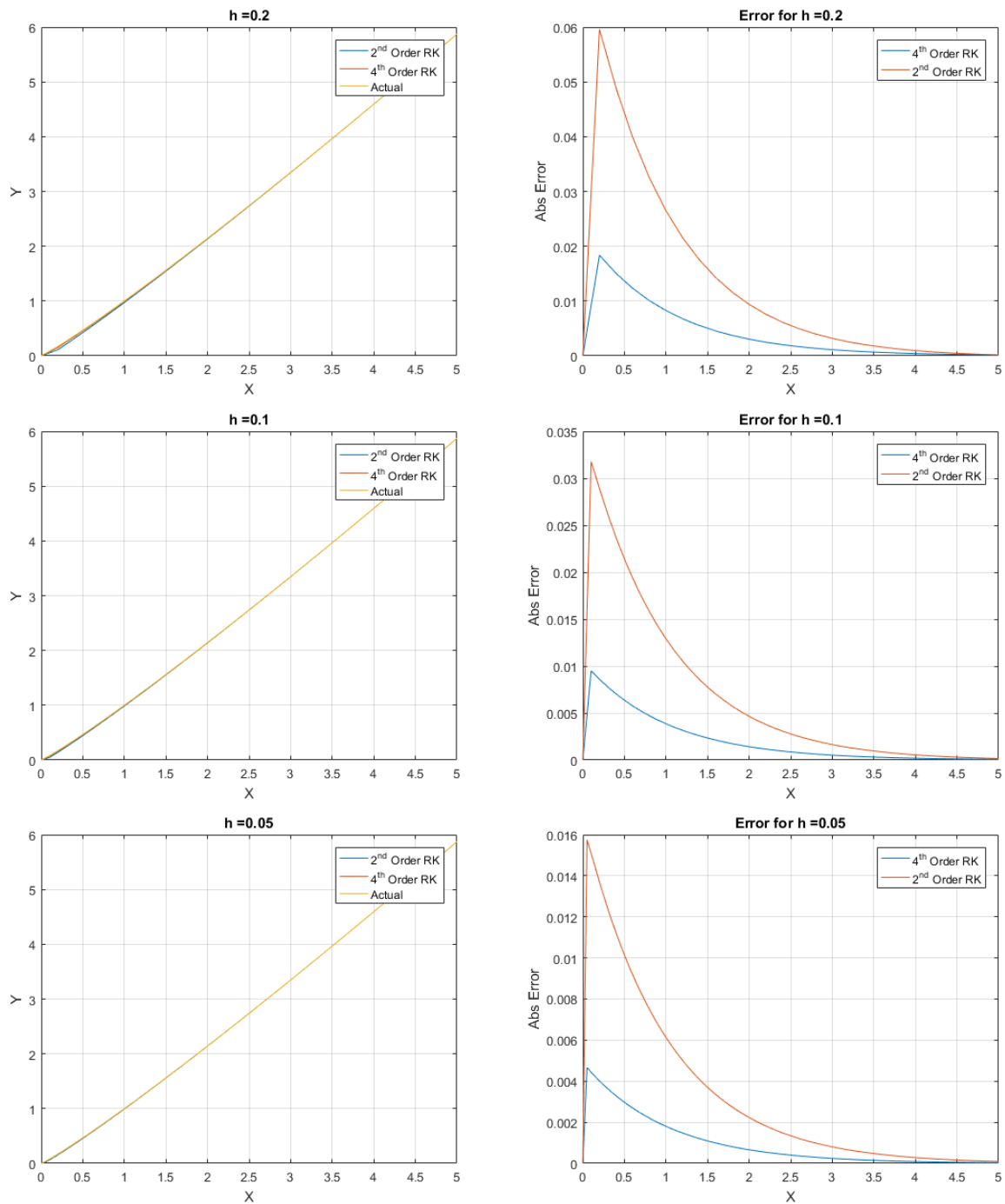# 2 $Y'(X) = -Y(X) + X^{0.1}(1.1 + X)$ with $Y(0) = 0$

Figure 2: Comparison of the First Order and the Second Order Runge Kutta Method Method

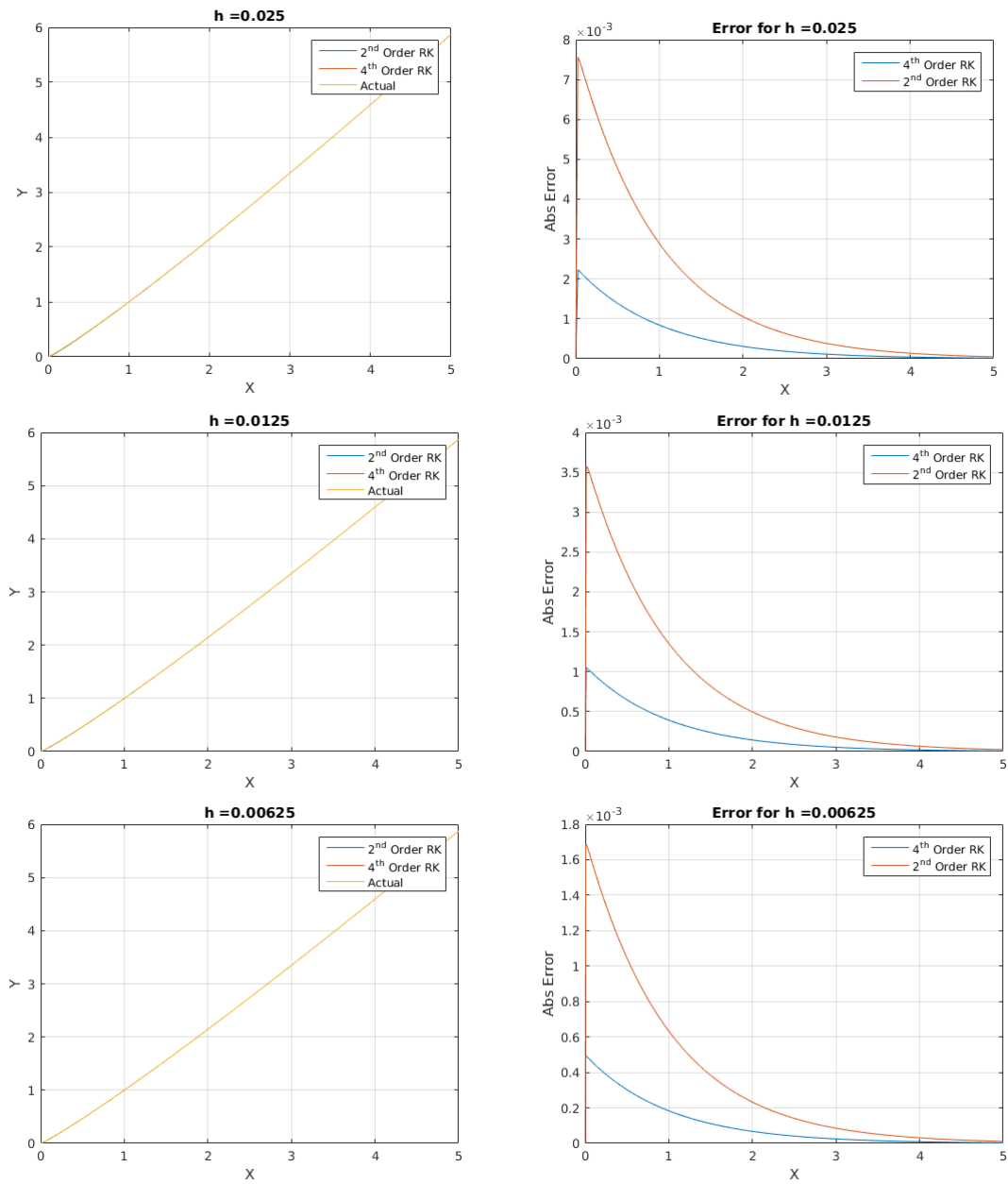# 3 $Y'(X) = -Y(X) + X^{0.1}(1.1 + X)$ with $Y(0) = 0$

Figure 3: Comparison of the First Order and the Second Order Runge Kutta Method Method