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HEUNS METHOD:

$$y' = yx^2 - 1{,}2y$$

$h = 0{,}5$ $\quad X = [0, 1]$

$y(0) = 1$ $\quad$ $x_0 = 0$, $y_0 = 1$

$$k_1 = f(x_i, y_i)$$

$$k_2 = f(x_i + h, y_i + k_1 h)$$

$$y_{i+1} = y_i + (k_1 + k_2)\frac{h}{2}$$

CHANGE TO $X_0 \to X_1$ BECAUSE $Y_0 \to Y_1$ OF MATLAB