

$$x_{\text{rok}}$$

$$\{y' = f(x,y)y(x_0) = y_0$$

$$??$$

$$x_{\text{rok}}$$

$$h$$

$$\{x_{i+1} = x_i + hy_{i+1} = y_i + kh$$

$$s_{\text{evnm}}$$

$$k_{\text{rokem}}$$

$$k =$$

$$k_1 :=$$

$$f(x_i, y_i)$$

$$k =$$

$$k_2 :=$$

$$f\left(x_i + \frac{h}{2}, y_i + k_1 \frac{h}{2}\right)$$

$$k =$$

$$\frac{1}{6}(k_1 +$$

$$2k_2 +$$

$$2k_3 +$$

$$k_4)$$

$$k_3 :=$$

$$f\left(x_i + \frac{h}{2}, y_i + k_2 \frac{h}{2}\right)$$

$$k_4 :=$$

$$f(x_i +$$

$$h, y_i +$$

$$k_3 h)$$

$$\{y' = x + y^2$$

$$\{x_{n+1} = x_n + h$$

$$n+1$$

$$y_n +$$

$$k h$$

$$k_1$$

$$k_1$$

$$k_2$$

$$11.21.41.6^{00.20.4}$$

$$y' =$$

$$x^2 +$$

$$y^2$$

$$y(0) =$$

$$1$$

Jak
 bylo
 zmnno,
 poten
 podmnka
 je
 pro
 nu-
 m-
 er-
 ickou
 aprox-
 i-
 maci
 dleit,
 udv
 toti
 bod,
 ze