

$$6 \quad y' = \frac{y^2 + xy - x^2}{x^2}, \quad y(1) = 2; \quad y = \frac{x(1 + \frac{x^2}{3})}{1 - \frac{x^2}{3}}$$

$$x \in [1, 1.5]; \quad h = 0.1; \quad y' = f(x, y)$$

$$0 \quad [x_0 = 1; y_0 = 2; \quad f(x_0, y_0) = \frac{4+2-1}{1} = 5; \quad hf(x_0, y_0) = 0.5]$$

$$1 \quad [x_1 = 1.1; \quad y_1 = y_0 + hf(x_0, y_0) = 2 + 0.5 = 2.5]$$

$$f(x_1, y_1) = 6.43802$$

$$2 \quad [x_2 = 1.2; \quad y_2 = y_1 + hf(x_1, y_1) = 3.14380]$$

$$f(x_2, y_2) = 8.48336$$

$$3 \quad [x_3 = 1.3; \quad y_3 = y_2 + hf(x_2, y_2) = 3.93214]$$

$$f(x_3, y_3) = 11.5012$$

$$4 \quad [x_4 = 1.4; \quad y_4 = y_3 + hf(x_3, y_3) = 5.14226]$$

$$f(x_4, y_4) = 16.1643$$

$$5 \quad [x_5 = 1.5; \quad y_5 = y_4 + hf(x_4, y_4) = 6.45869]$$

$$f(x_5, y_5) = 23.8080$$

x	$y(\text{Euler})$	$y(\text{Exact})$	TE
1	2	2	0
1,1	2,5	2,58715	0,087151
1,2	3,14380	3,41538	0,27158
1,3	3,99214	4,65420	0,66206
1,4	5,14226	6,67692	1,53467
1,5	6,75869	10,5	3,74132