1/6

n	h	μ_n	$y(1)-\mu_n$	$(y(1)-\mu_n)/h$
1	0.1	1.2	4.237	12
2	0.1	1.44	3.997	14.4
1	0.05	1.1	4.337	46.74
2	0.05	1.21	4.227	84.54
1	0.001	1.002	4.435	$4.435e3$
2	0.001	1.004	4.433	$4.433e3$

$(h = 0.001)$

$\therefore \mu_1 = 1 + 2(0.001)$

$= 1.002$

$\mu_2 = (1.002)^2$

≈ 1.004

$y(1) - \mu_1 = 2e - 1.002 = \alpha$

≈ 4.435

$y(1) - \mu_2 = 2e - 1.004 = \beta$

≈ 4.433

$\frac{\alpha}{h} = \frac{4.435}{0.001} = 4.435 \times 10^3$

$\frac{\beta}{h} = \frac{4.433}{0.001} = 4.433 \times 10^3$

$n = \frac{t_n - t_0}{h}$

$= \frac{1-0}{0.1}$

$= 10 \ldots$

W/ A SMALLER STEP SIZE LESS ACCURATE APPROXIMATIONS COME OUT. THIS SEEMS COUNTER-INTUITIVE I THINK I DID SOME → EARLIER STEP WRONG...