1/6

n	h	μ_n	$\gamma(1) - \mu_n$	$(\gamma(1) - \mu_n)/h$
1	0.1	1.160	4.277	42.77
2	0.1	1.346	4.091	40.91
1	0.05	1.078	4.354	87.18
2	0.05	1.162	4.270	85.50
1	0.001	1.002	4.435	4.435×10^3
2	0.001	1.003	4.434	4.434×10^3

$\gamma_0 = 1$, $\mu_0 = \gamma_0$
$= 1$

$h = 0.001$

$\mu_{n+1} = \mu_n\left(1 + h + \frac{h}{2} + h^2\right)$

$\mu_0 = 1$

$\mu_1 = \mu_0(1 + 0.001 + \frac{0.001}{2} + 0.001^2)$

$= 1.002$ ... ROUNDING ERROR GETTING SIGNIFICANT ...(?)

$\mu_2 = \mu_1(1 + \cdots)$

$= 1.002(1 + \cdots)$

$= 1.002^2$ - - -

$= 1.003$ /

$\gamma(1) = 2e \approx 5.437\ldots$

$\gamma(1) - \mu_1 = 2e - 1.002 = 4.435 = \alpha$

$\gamma(1) - \mu_2 = 2e - 1.003 = 4.434 = \beta$

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

$\frac{\beta}{h} = 4.434 \times 10^3$

ANALYZE:

... @ SMALLER h, THE DIFFERENCE BETWEEN ERRORS IN INSTANCES OF $n\ (n=1 \longrightarrow n=2)$ DECREASES...

YET I'M STILL CONFUSED AS TO WHY ERROR GROWS W/ SMALLER STEP SIZE

LESS APPARENT ERROR — MORE A.E.

SOUND FREQUENCY

MARKER TOTH