

n	h	$\mu_n$	$y(1) - \mu_n$	$(y(1) - \mu_n)/h$
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	4.275	85.50
1	0.001			
2	0.001			

$$y_0 = 1, \mu_0 = y_0 = 1$$

$$h = 0.05$$

$$\mu_{n+1} = \mu_n \left(1 + h + \frac{h^2}{2} + h^3\right)$$

$$\mu_0 = 1$$

$$\mu_1 = \mu_0 \left(1 + 0.05 + \frac{0.05^2}{2} + 0.05^3\right)$$

$$= 1.078$$

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

$$= 1.078 (1 + \dots)$$

$$= 1.078^2$$

$$= 1.162$$

$$y(1) = 2e \approx 5.437 \dots$$

$$y(1) - \mu_1 = 2e - 1.078 = 4.359$$

$$y(1) - \mu_2 = 2e - 1.162 = 4.275$$

$$\rightarrow \frac{\alpha}{h} = \frac{4.359}{0.05} = 87.18$$

$$\frac{\beta}{h} = \frac{4.275}{0.05} = 85.50$$

LESS  
APPARENT  
ERROR

MORE  
A. E.



↑ SOUND  
FREQUENCY

LESS  
APPARENT  
ERR. IN  
(A.E.)

MORE  
A. E.

↑ MARKER  
WIDTH