

$$\int_0^h f(x) dx \sim c_0 f(0) + c_1 f(h)$$

IF $a=0$

$$c_a + c_b = b$$

$$b c_b = \frac{1}{2} b^2$$

$$c_a = b - c_b = b - \frac{1}{2} b = \frac{1}{2} b$$

$$\int_a^b f(x) dx \sim c_a f(a) + c_b f(b)$$

$$\int_0^b f(x) dx = \frac{h}{2} (f(0) + f(b))$$

$$f(x) = 1$$

$$\int_a^b 1 dx = b - a = c_a + c_b$$

$$T(h) - \frac{h}{2} (f(0) + f(b)) = \frac{b h^2}{12} f''(\xi)$$

$$\int_a^b x dx = \frac{1}{2} x^2 \Big|_a^b = \frac{1}{2} (b^2 - a^2) = c_a a + c_b b$$

LC THURS