$f(x) = x + u$, u IS A REAL NO.

$$\int_a^b x + u \, dx = \frac{1}{2}x^2\Big|_a^b + (b-a) = T(h) - \varepsilon f''(\xi)$$

$$\frac{1}{2}(b^2 - a^2) + (b-a) = T(h)$$

$$T(h) = h\Big(\frac{3}{2}a + h + a + 2h + \cdots$$
$$\cdots + a + \Big(\frac{b-a}{h} - 1\Big)h + \cdots$$
$$\cdots + \frac{1}{2}\Big(a + \frac{b-a}{h}h\Big)$$

$$= h\Big(\frac{1}{2}f(a) + f(a+h) + f(a+2h) + \cdots$$
$$\cdots + f(a + (n-1)h) + \frac{1}{2}f(a+nh)\Big)$$
$$= h\Big(\frac{1}{2}a + a + h + a + 2h + \cdots$$
$$\cdots + a + (n-1)h + \frac{1}{2}(a + nh)\Big)$$

$T(h) = h($

$$n = \frac{b-a}{h}$$

$$\frac{1}{2}a + a + h + a + 2h + \cdots + a + \frac{(b^2 - a^2)}{(b-a)} - h + \cdots$$
$$\cdots + \frac{1}{2}a + + \frac{1}{2}b - \frac{1}{2}a = \cdots$$
$$\cdots = \frac{1}{2} + a + h + a + 2h + \cdots + b - h + \frac{1}{2}b$$

NOW $T(h) = h(b-a)(3)$