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

(1)

$$= h\left(\frac{1}{2}f(a) + f(a+h) + f(a+2h) + f(a+3h) + \cdots + f(a+(n-2)h) + f(a+(n-1)h) + \frac{1}{2}f(a+nh)\right)$$

$f(x) = x$

$$T(h) = h\left(\frac{1}{2}a + (a+h) + (a+2h) + (a+3h) + \cdots + (a+(n-2)h) + (a+(n-1)h) + \frac{1}{2}(a+nh)\right)$$

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

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

(2)

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

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

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

$$= h\left(\frac{1}{2}a + a(n-1) + b(n-1) + \frac{1}{2}(a+b-a)\right)$$

$$= h\left(\frac{1}{2}a + a(n-1) + b(n-1) + \frac{1}{2}b\right)$$

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

MB?