1 formular

the formular for the trapezoidal rule is : $I = \int_a^b f(x)dx$ $I = \frac{h}{2}(y_0 + y_n) + 2(y_1 + y_2 + y_3 + ...y_{n-1})$

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

2 Example

$$I = \int_0^1 X^2$$

$$n = 10$$

$$h = \frac{(b-a)}{n} = \frac{1+0}{10}$$

$$h = 0.1$$

To compute $y_0 upto y_{10}$ we use the formular $y = x^2$. when$X = 0, Y = ()^2$; when$X = 0.1, Y = (0.1)^2 2$ AND SO ON

$$I = \frac{0.1}{2}(0+1) + 2(0.01 + 0.04 + 0.09 + 0.25 + 0.36 + 0.49 + 0.64 + 0.81)$$

ANS :