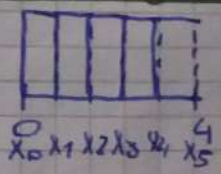
Es. 1

$f(x) = e^{x^2-3x}$ $[0,4]$ $n=5$ RETTANGOLI A SINISTRA



$h = \frac{b-a}{n} = \frac{4}{5}$

$x_0 = 0$ $f(x_0) = e^0 = 1$

$x_1 = x_0 + h = 0 + \frac{4}{5} = \frac{4}{5}$ $f(x_1) = 0,1721$

$x_2 = x_0 + 2h = 0 + \frac{8}{5} = \frac{8}{5}$ $f(x_2) = 0,1065$

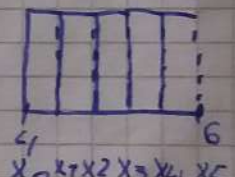
$x_3 = x_0 + 3h = 0 + \frac{12}{5} = \frac{12}{5}$ $f(x_3) = 0,2369$

$x_4 = x_0 + 4h = 0 + \frac{16}{5} = \frac{16}{5}$ $f(x_4) = 1,8965$

$A_N = h\left(f(x_0) + f(x_1) + f(x_2) + f(x_3) + f(x_4)\right) = 1,9296$

Es. 2

$f(x) = \sqrt{x^2-4}$ $[4,6]$ $n=5$ RETTANGOLI A SINISTRA



$h = \frac{b-a}{n} = \frac{6-4}{5} = \frac{2}{5}$

$x_0 = 4$ $f(x_0) = 3,4641$

$x_1 = x_0 + h = 4 + \frac{2}{5} = 4,4$ $f(x_1) = 3,9192$

$x_2 = x_0 + 2h = 4 + \frac{4}{5} = 4,8$ $f(x_2) = 4,3635$

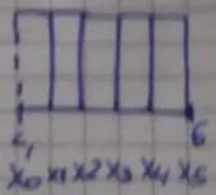
$x_3 = x_0 + 3h = 4 + \frac{6}{5} = 5,2$ $f(x_3) = 4,8$

$x_4 = x_0 + 4h = 4 + \frac{8}{5} = 5,6$ $f(x_4) = 5,2307$

$A_N = \frac{2}{5}\left(f(x_0) + f(x_1) + f(x_2) + f(x_3) + f(x_4)\right) = 8,71$

ES 3

$f(x) = \ln(x-3)$ $[4,6]$ $n=5$ RETTANGOLI A DESTRA $h = \frac{b-a}{n} = \frac{2}{5}$



$x_0 = 4$ $f(x_0) = 0$

$x_1 = x_0 + h = 4 + \frac{2}{5} = \frac{22}{5}$ $f(x_1) = 0,3365$

$x_2 = x_0 + 2h = 4 + \frac{4}{5} = \frac{24}{5}$ $f(x_2) = 0,5879$

$x_3 = x_0 + 3h = 4 + \frac{6}{5} = \frac{26}{5}$ $f(x_3) = 0,7885$

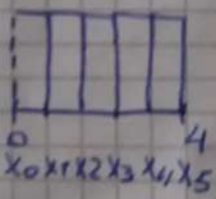
$x_4 = x_0 + 4h = 4 + \frac{8}{5} = \frac{28}{5}$ $f(x_4) = 0,9555$

$x_5 = x_0 + 5h = 4 + \frac{10}{5} = \frac{30}{5}$ $f(x_5) = 1,0986$

$A_N = h(f(x_1) + f(x_2) + f(x_3) + f(x_4) + f(x_5)) = 1,51$

ES. 4

$f(x) = x e^{x+1}$ $[0,4]$ $n=5$ RETTANGOLI A DESTRA



$h = \frac{b-a}{n} = \frac{4}{5}$

$x_0 = 0$

$x_1 = x_0 + h = \frac{4}{5}$ $f(x_1) = \frac{4}{5} \cdot e^{\frac{4}{5}+1} = 4,8397$

$x_2 = x_0 + 2h = \frac{8}{5}$ $f(x_2) = \frac{8}{5} \cdot e^{\frac{8}{5}+1} = 21,5420$

$x_3 = x_0 + 3h = \frac{12}{5}$ $f(x_3) = \frac{12}{5} \cdot e^{\frac{12}{5}+1} = 71,8138$

$x_4 = x_0 + 4h = \frac{16}{5}$ $f(x_4) = \frac{16}{5} \cdot e^{\frac{16}{5}+1} = 213,3563$

$x_5 = x_0 + 5h = \frac{20}{5}$ $f(x_5) = \frac{20}{5} \cdot e^{\frac{20}{5}+1} = 553,6526$

$A_N = h(f(x_1) + f(x_2) + f(x_3) + f(x_4) + f(x_5)) = 724,27$