

$$f(x) = 2^x \ln(x - 2)$$

simpson 3/8
compuesto con 4
intervalos

$$h = \frac{b - a}{3} = \frac{6 - 3}{3} = 1$$

$$intervalos = \{3, 4, 5, 6\}$$

$$s_{intervalos} = \left\{ \frac{10}{3}, \frac{11}{3}, \frac{13}{3}, \frac{14}{3}, \frac{16}{3}, \frac{17}{3} \right\}$$

$$\int_a^b f(x) dx = \frac{b - a}{8n} \left[f(x_0) + 3 \sum_{i=1}^n f(x_{mi}) + 2 \sum_{i=1}^{n-1} f(x_i) + f(x_n) \right]$$

$$\int_3^6 2^x \ln(x - 2) dx = \frac{6 - 3}{8(4)} \left[f(3) + 3 \left(f\left(\frac{10}{3}\right) + f\left(\frac{11}{3}\right) + f\left(\frac{13}{3}\right) + f\left(\frac{14}{3}\right) + f\left(\frac{16}{3}\right) + f\left(\frac{17}{3}\right) \right) + 2(f(4) + f(5)) + f(6) \right]$$

$$= 95.96193536$$