TASK 5

a) $$\int_a^b f(x)dx = \frac{h}{3}\left((y_0+y_n) + 4(y_1+y_3\dots) + 2(y_2+y_4\dots)\right)$$

$$h = \frac{b-a}{n} \qquad n = 2$$

x_0 ✓ y_0 ✓

x_1 ✓ y_1 ✓

x_2 ✓ y_2 ✓

$$\frac{h}{3}\left((y_0+y_2) + 4(y_1)\right) = \int_6^{20} f(x)$$

b) ERROR FROM SIMPSON'S

$$\int_a^b T_4\,dx = \frac{-h^5}{90} f^5(0)$$

$1/3$

h^5