$$\int_a^b |s_4(x)|\,dx = -\frac{1}{24}$$

$$= -\frac{1}{24}$$

$$+ \int_{\frac{a+b}{2}}^b ($$

$$= -\frac{1}{24}$$

$$+ ax^2(a$$

$$+ \int_{\frac{a+b}{2}}^b \left[x^4 - 3bx^3 + 3b^2x^2 - b^3x - \frac{x^3}{3}(2a+b) + bx^2(2a+b) - b^2x(2a+b) + \frac{b^3}{3}(2a+b)\right] dx\Bigg]$$

$$= -\frac{1}{24}$$

$$+ \frac{a^3}{3}(a$$

$$+ \frac{bx^3}{3}(2$$

$$= -\frac{1}{24}$$

$$- \frac{1}{12}\left($$

$$+ \frac{a^3}{3}(a$$

$$+ \frac{a^4}{2}(a$$

$$+ \frac{b^5}{5} -$$

$$- \frac{1}{5}\left(\frac{a}{-}\right.$$

$$+ \frac{1}{12}\left($$

$$= -\frac{1}{24}$$

$$+ \frac{4}{3}(a^2 -$$