Integral Aufgabe 31

$$f_{(x)} = -\frac{1}{5}x^3 + 2x^2 - 5x$$

Nullstellen:

$$-\frac{1}{5}x(x^2 - 10x + 25) = 0$$

$$-\frac{1}{5}x = 0 \mid :\left(-\frac{1}{5}\right)$$

$x_1 = 0$

$x^2 - 10x + 25 = 0$

2. Binom

$(x - 5)^2 = 0$

$x_{2,3} = 5$ Berührpunkt

$$A = \int_0^5 \left(-\frac{1}{5}x^3 + 2x^2 - 5x\right) dx = \left|-\frac{x^4}{20} + \frac{2x^3}{3} - \frac{5x^2}{2}\right|_0^5 = |-10{,}42|$$

A = 10,42