Integral Aufgabe 37

$$f_{(x)} = \frac{1}{2}x^2 + x - 4$$

Nullstellen:

$$\frac{1}{2}x^2 + x - 4 = 0 \mid *2$$

$$x^2 + 2x - 8 = 0$$

Linearfaktoren:

$$(x + 4)(x - 2) = 0$$

$$x_1 = -4$$

$$x_2 = 2$$

$$A = \int_{-4}^{2} \left(\frac{1}{2}x^2 + x - 4\right) dx = \left|\frac{x^3}{6} + \frac{x^2}{2} - 4x\right|_{-4}^{2} = |-4{,}67 - (13{,}33)|$$

A = 18