# Mathe Hausaufgaben

27.3.20

a) $f(x) = \frac{1}{2}x^2 - 3x$

$f(x) = \frac{1}{2}(x^2 - 6x + 0)$

$\frac{6}{2} \pm \sqrt{(\frac{-6}{2})^2 + 0}$

$x_1 = 0$

$x_2 = 6$

$\int_0^6 (\frac{1}{2}x^2 - 3x)\,dx \left[\frac{0.5}{3}x^3 - \frac{3}{2}x^2 + C\right]_0^6$

$(\frac{0.5}{3} \cdot 6^3 - \frac{3}{2} \cdot 6^2 + C) - (\frac{0.5}{3} \cdot 0^3 - \frac{3}{2} \cdot 0^2 + C)$

$(36 - 54) - (0 - 0)$

$-18 - 0 = -18$ FE