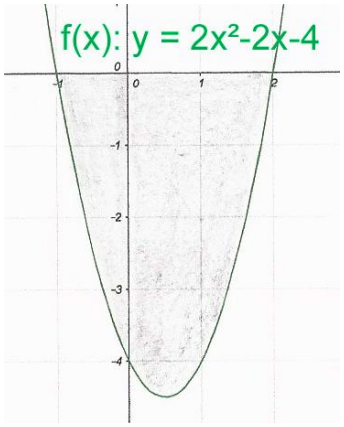
Funktionen – Anwendung der Integralrechnen – Flächeninhalt von f(x)

Arbeitsblatt 2

f(x): $y = (2x^2 - 2x - 4)$; Intervall $\rightarrow$ = Nullstellen der Funktion f(x); $\rightarrow$ = (-1;+2)

$\rightarrow \quad 2x^2 - 2x - 4 = 0 \quad \rightarrow \quad x^2 - x - 2 = 0$

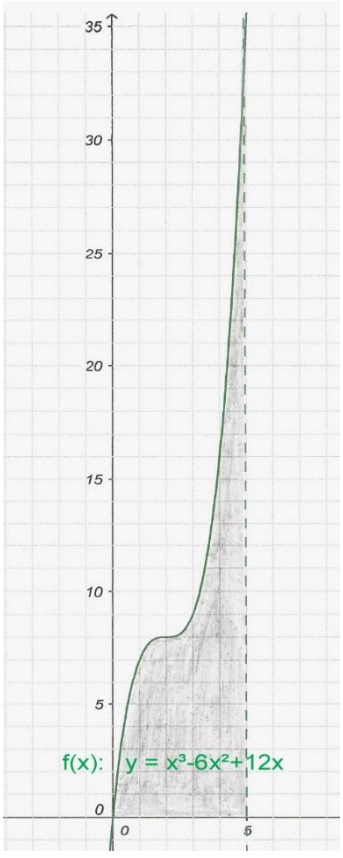
$\rightarrow \quad x_{1,2} = \frac{1}{2} \pm \sqrt{\left(\frac{1}{2}\right)^2 + \frac{8}{4}}$ $\qquad x_{1,2} = \frac{1}{2} \pm \frac{3}{2}$; Intervall:(-1; +2)



$\int_a^b f(x) \, . \, dx =$

= **9 FE**

f(x): $y = (x^3 - 6x^2 + 12x)$; Intervall: (a = 0/b = +5);



$\int_a^b f(x) \, . \, dx =$

= **56,25 FE**

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