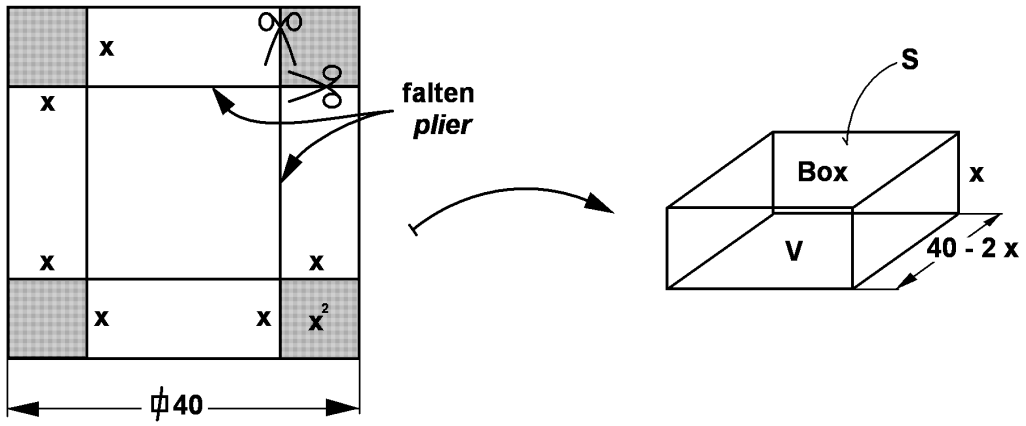
Übungen in Analysis ◇ Exercices en Analyse ◇ T. B2 ◇ II / 14

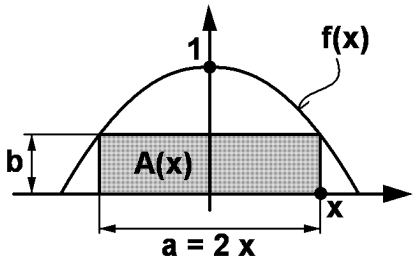
Probl. 1



$S(x) = (40^2 - 4\,x^2) \rightarrow \ max, \ \ x = ? \rightsquigarrow \ \ x = 0, \ \ 4\,x^2 = 0, \ \ S = 40^2$

$V(x) = (40 - 2\,x) \cdot x \rightarrow \ max, \ \ x = ?$

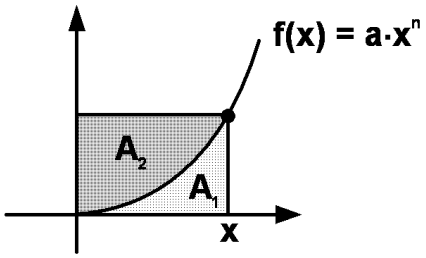
Probl. 2



$A(x) = \ldots \rightarrow \ max, \ \ x = ?$

$2\,(a + b) = \ldots \rightarrow \ max, \ \ x = ?$

Probl. 3

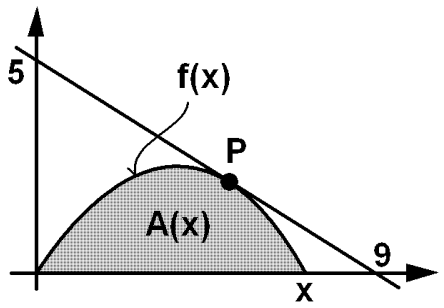


$f(x) = a \cdot x^n$

$A_1(x) = ?, \ \ A_2(x) = ?, \ \ \dfrac{A_2(x)}{A_1(x)} = ?$

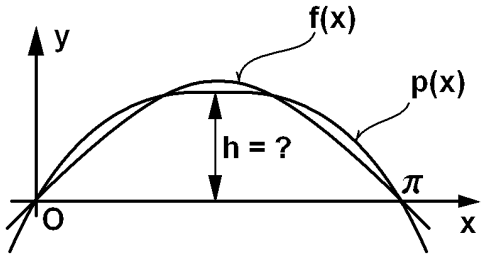
%

Probl. 4



$A(x) \rightarrow \ max, \ \ x = ?$
$f(x) = ?$

Probl. 5



$f(x) = \sin(x)$
$p(x) = a\,x^2 + b\,x + c$
$\int_0^{\pi} f(x)\,dx = \int_0^{\pi} p(x)\,dx$
$h = ?$