LS-Kursstufe S 84

Nr. 11) a) $f(x) = 2x \qquad F(x) = \frac{2}{2}x^2 = x^2 + C$

$F(1) = 100 \Rightarrow F(1) = 1^2 + C = 100 \Rightarrow \underline{C = 99}$

b) $f(x) = x^2 \qquad F(x) = \frac{x^3}{3} + C$

$F(1) = 100 \Rightarrow F(1) = \frac{1^3}{3} + C = 100 \Rightarrow \underline{C = 99\frac{2}{3}}$

c) $f(x) = 5 \qquad F(x) = 5x + C$

$F(1) = 100 \qquad F(1) = 5 \cdot 1 + C = 100 \Rightarrow \underline{C = 95}$

d) $f(x) = -x \qquad F(x) = -\frac{x^2}{2} + C$

$F(1) = 100 \qquad F(1) = -\frac{1^2}{2} + C = 100 \Rightarrow \underline{C = 100{,}5}$

e) $f(x) = -10 \qquad F(x) = -10x + C$

$F(1) = 100 \qquad F(1) = -10 \cdot 1 + C = 100 \Rightarrow \underline{C = 110}$

a) $\underline{F(x) = x^2 + 99}$

b) $\underline{F(x) = \frac{x^3}{3} + 99\frac{2}{3}}$

c) $\underline{F(x) = 5x + 95}$

d) $\underline{F(x) = -\frac{x^2}{2} + 100{,}5}$

e) $\underline{F(x) = -10x + 110}$

O. Fell