Einfache Stammfunktionen

Regel: f(x) = x^n => F(x) = $\frac{1}{n+1}\, x^{n+1}$ + C

Weitere Regeln, die man öfter braucht: $\frac{a}{b^c} = a \cdot b^{-c}$ und $\sqrt[a]{x^b} = x^{\frac{b}{a}}$

f(x) =	f(x) =	F(x) =	F(x) =
$f(x) = 0$			
$f(x) = 1$			
$f(x) = 2$			
$f(x) = x^2$			
$f(x) = 6x$			
$f(x) = 6x + 2$			
$f(x) = 2x^2$			
$f(x) = \frac{1}{2}x^2$			
$f(x) = \frac{3}{4}x^5$			
$f(x) = x^{-2}$			
$f(x) = x^{-4}$			
$f(x) = \frac{2}{x^3}$			
$f(x) = \sqrt{x}$			
$f(x) = \sqrt[3]{x^2}$			
f(x) = sin(x)			

Lösung

Einfache Stammfunktionen **Regel: f(x) = x^n => F(x) = $\frac{1}{n+1}\, x^{n+1}$ + C** **Weitere Regeln, die man öfter braucht:** $\frac{a}{b^c} = a \cdot b^{-c}$ und $\sqrt[a]{x^b} = x^{\frac{b}{a}}$			
f(x) =	**f(x) =**	**F(x) =**	**F(x) =**
$f(x) = 0$		$F(x) = C$	
$f(x) = 1$		$F(x) = x + C$	
$f(x) = 2$		$F(x) = 2x + C$	
$f(x) = x^2$		$F(x) = \frac{1}{3}\, x^3 + C$	
$f(x) = 6x$		$F(x) = \frac{6}{2} x^2 + C$	$F(x) = 3x^2 + C$
$f(x) = 6x + 2$		$F(x) = 3x^2 + 2x + C$	_____
$f(x) = 2x^2$		$F(x) = \frac{2}{3}\, x^3 + C$	
$f(x) = \frac{1}{2} x^2$		$F(x) = \frac{1}{2 \cdot 3}\, x^3 + C$	$F(x) = \frac{1}{6}\, x^3 + C$
$f(x) = \frac{3}{4} x^5$		$F(x) = \frac{3}{24}\, x^6 + C$	$F(x) = \frac{1}{8}\, x^6 + C$
$f(x) = x^{-2}$		$F(x) = \frac{1}{-1}\, x^{-1} + C$	$F(x) = -\frac{1}{x} + C$
$f(x) = x^{-4}$		$F(x) = \frac{1}{-3}\, x^{-3} + C$	$F(x) = -\frac{1}{3x^3} + C$
$f(x) = \frac{2}{x^3}$	$f(x) = 2 \cdot x^{-3}$	$F(x) = \frac{2}{-2}\, x^{-2} + C$	$F(x) = -\frac{1}{x^2} + C$
$f(x) = \sqrt{x}$	$f(x) = x^{\frac{1}{2}}$	$F(x) = \frac{1}{\frac{3}{2}} x^{\frac{3}{2}} + C$	$F(x) = \frac{2}{3} \sqrt[2]{x^3} + C$
$f(x) = \sqrt[3]{x^2}$	$f(x) = x^{\frac{2}{3}}$	$F(x) = \frac{1}{\frac{5}{3}} x^{\frac{5}{3}} + C$	$F(x) = \frac{3}{5} \sqrt[3]{x^5} + C$
f(x) = sin(x)		F(x) = - cos(x)	