

TÜ

Mathematik Grundkurs 11

f(x)	f'(x)			Lösung		
	a	b	c	a	b	c
x^3+x^2	$3x^2+3x$	$3x^2+x$	$3x^2+2x$			
$2\sqrt{x}$	$1\sqrt{x}$	$2\sqrt{x}$	$\frac{1}{\sqrt{x}}$			
$x^2 + \frac{1}{x^2}$	$2x - \frac{2}{x^3}$	$2x - \frac{2}{x}$	$2x + \frac{2}{x^3}$			
$5x+5x^3+5x^5$	$5+5x^2+5x^4$	$25x^4+15x^2+5$	$\frac{5}{2}x^2 + \frac{5}{4}x^4 + \frac{5}{6}x^6$			
$2(x-1)^2$	$4(x-1)$	$2(2x-2)$	$2(x-1)$			
$3x^{17}-5x^{12}+4x^3$	$17x^{16}-12x^{11}+3x^2$	$3x^{16}-5x^{11}+4x^2$	$51x^{16}-60x^{11}+12x^2$			
x^n+x-1	$nx^{n-1}+1$	$nx^{n-1}-1$	$(n-1)x^n+1$			
$\frac{2x^5 - 4x^4 - 13}{2}$	$\frac{10x^4 + 16x^3}{2}$	$5x^4-8x^3$	$\frac{10x^4 - 16x^3 - 13}{2}$			
$(5-x)(5+x)$	$-2x$	$10+2x$	$2x-25$			
ax^5-bx^2+5	$5x^4-2x$	ax^4-bx	$5ax^4-2bx$			