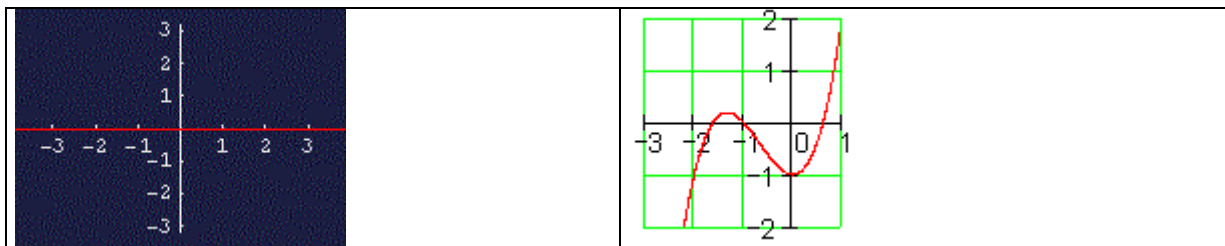


### Beispiel von 50 Funktionen und deren Ableitungen

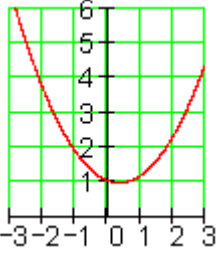
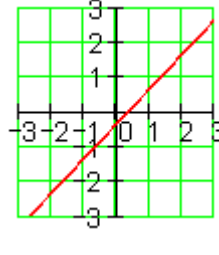
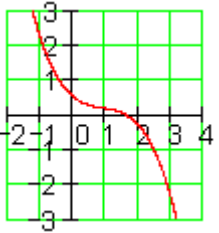
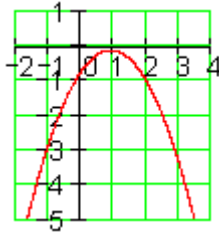
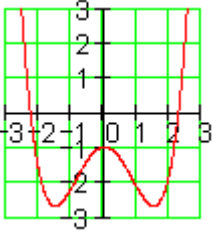
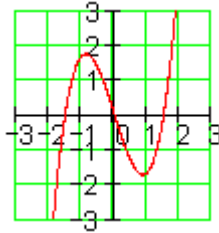
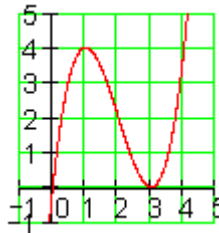
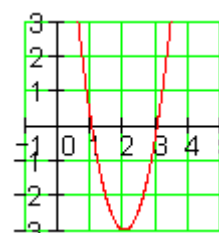
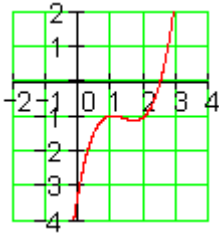
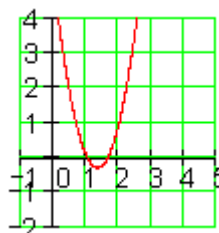


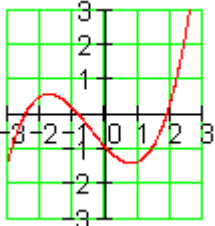
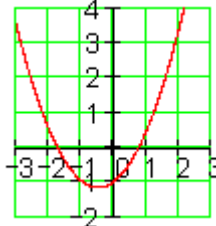
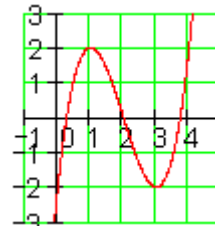
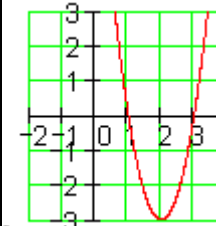
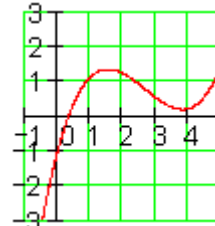
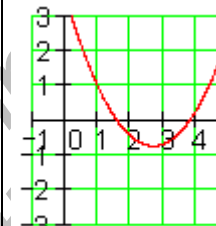
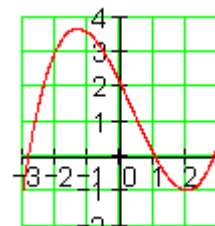
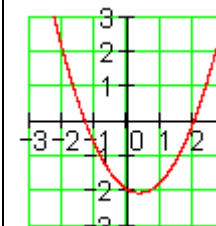
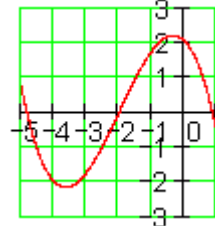
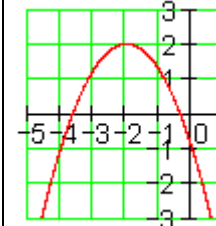
f0.gif		a0.gif	
	$f(x) = x^3 + 2x^2 - 1$		$f'(x) = 3x^2 + 4x$

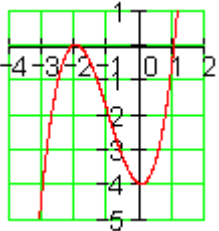
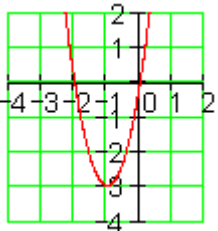
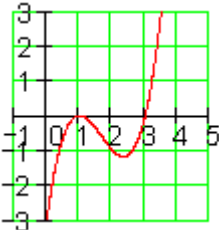
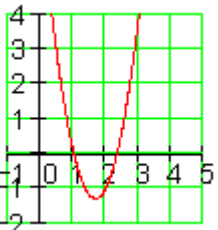
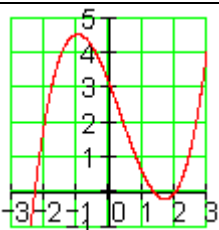
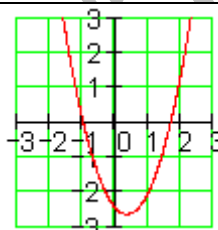
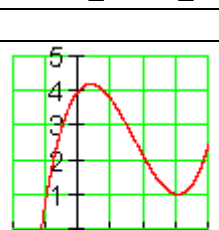
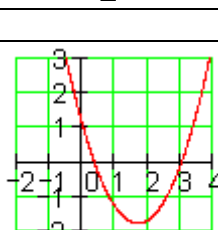
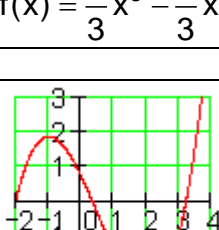
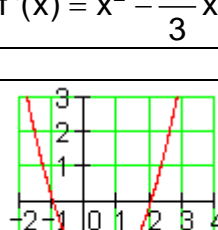
f1.gif		a1.gif	
	$f(x) = 2x - 3$		$f'(x) = 2$

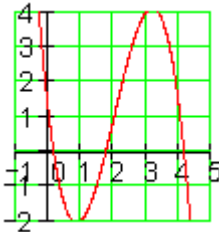
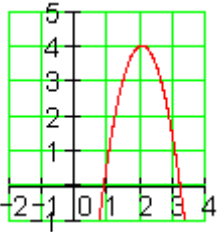
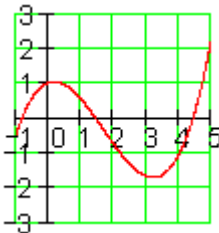
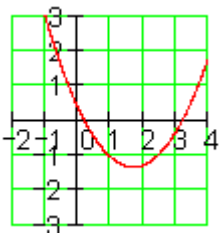
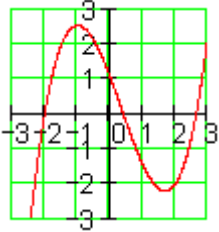
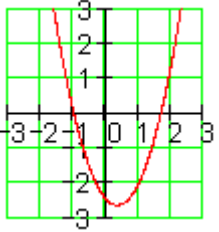
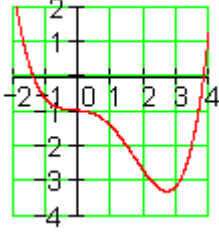
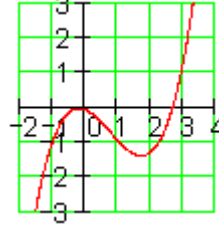

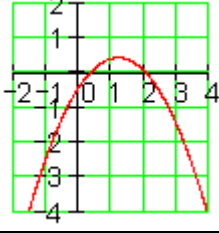
f2.gif		a2.gif	
	$f(x) = 2x^2 + 3x - 1$		$f'(x) = 4x + 3$

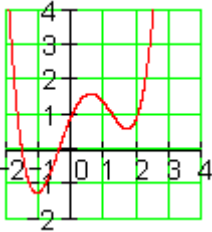
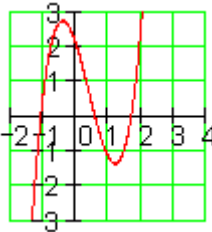
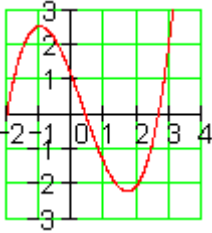
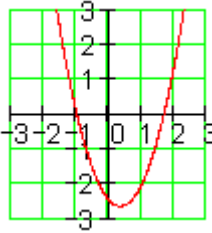
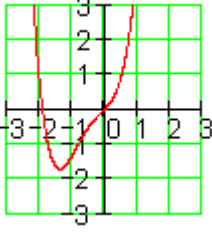
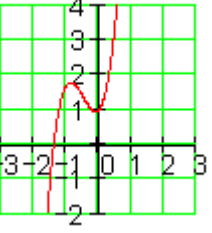
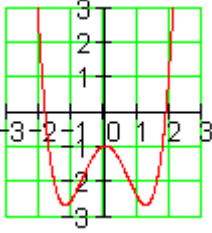
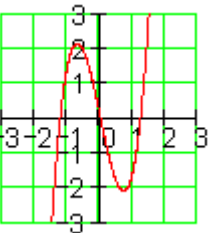
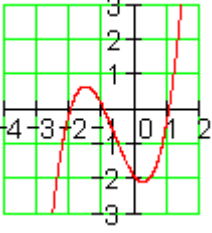
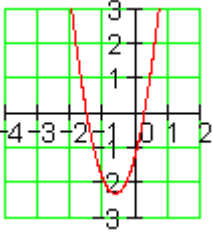
f3.gif		a3.gif	
	$f(x) = -\frac{1}{2}x^2 + x + 1$		$f'(x) = -x + 1$

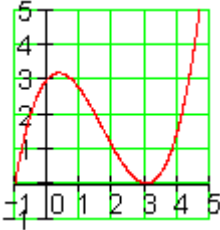
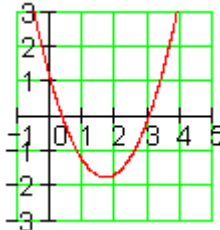
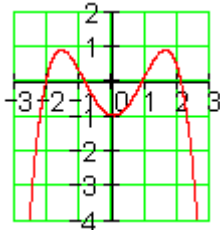
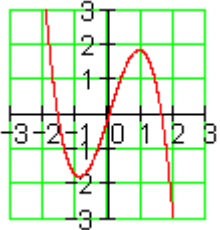
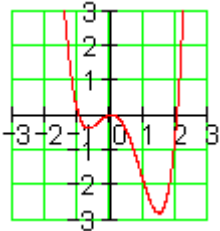
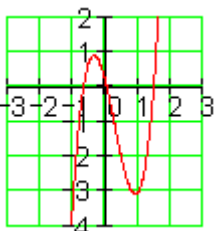
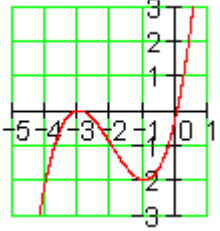
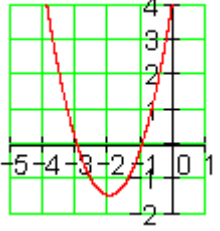
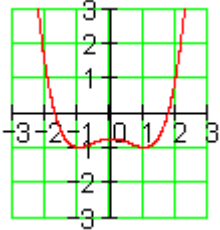
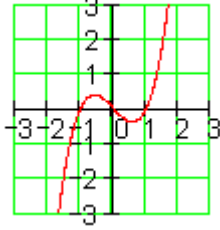
f4.gif		a4.gif	
	$f(x) = \frac{1}{2}x^2 - \frac{1}{3}x + 1$		$f'(x) = x - \frac{1}{3}$
f5.gif		a5.gif	
	$f(x) = -\frac{1}{4}x^3 + \frac{2}{3}x^2 - \frac{3}{4}x + \frac{1}{2}$		$f'(x) = -\frac{3}{4}x^2 + \frac{4}{3}x - \frac{3}{4}$
f6.gif		a6.gif	
	$f(x) = -\frac{1}{3}x^4 - \frac{3}{2}x^2 - 1$		$f'(x) = \frac{4}{3}x^3 - 3x$
f7.gif		a7.gif	
	$f(x) = x^3 - 6x^2 + 9x$		$f'(x) = 3x^2 - 12x + 9$
f8.gif		a8.gif	
	$f(x) = x^3 - 4x^2 + 5x - 3$		$f'(x) = 3x^2 - 8x + 5$

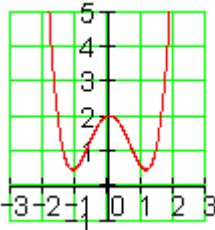
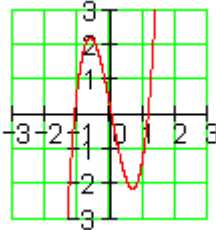
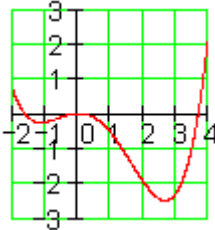
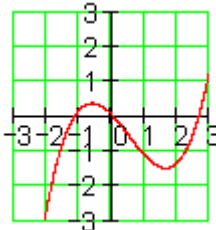
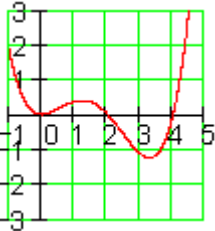
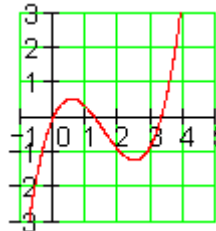
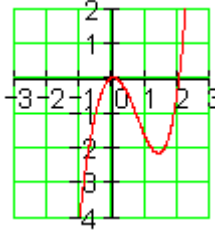
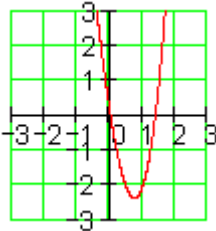
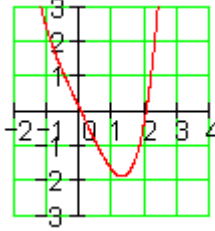
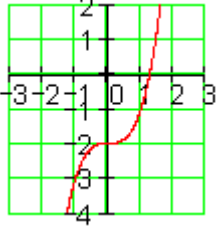
f9.gif		a9.gif	
	$f(x) = \frac{1}{4}x^3 + \frac{3}{8}x^2 - x - 1$		$f'(x) = \frac{3}{4}x^2 + \frac{3}{4}x - 1$
f10.gif		a10.gif	
	$f(x) = x^3 - 6x^2 + 9x - 2$		$f'(x) = 3x^2 - 12x + 9$
f11.gif		a11.gif	
	$f(x) = \frac{1}{5}x^3 - \frac{8}{5}x^2 + \frac{7}{2}x - 1$		$f'(x) = \frac{3}{5}x^2 - \frac{16}{5}x + \frac{7}{2}$
f12.gif		a12.gif	
	$f(x) = \frac{1}{4}x^3 - \frac{1}{4}x^2 - 2x + 2$		$f'(x) = \frac{3}{4}x^2 - \frac{1}{2}x - 2$
f13.gif		a13.gif	
	$f(x) = -\frac{1}{4}x^3 - \frac{2}{3}x^2 - x + 2$		$f'(x) = -\frac{3}{4}x^2 - 3x - 1$

f14.gif		a14.gif	
	$f(x) = x^3 + 3x^2 - 4$		$f'(x) = 3x^2 + 6x$
f15.gif		a15.gif	
	$f(x) = x^3 - 5x^2 + 7x - 3$		$f'(x) = 3x^2 - 10x + 7$
f16.gif		a16.gif	
	$f(x) = \frac{1}{2}x^3 - \frac{1}{2}x^2 - \frac{5}{2}x + 3$		$f'(x) = \frac{3}{2}x^2 - x - \frac{5}{2}$
f17.gif		a17.gif	
	$f(x) = \frac{1}{3}x^3 - \frac{5}{3}x^2 + x + 4$		$f'(x) = x^2 - \frac{10}{3}x + 1$
f18.gif		a18.gif	
	$f(x) = \frac{1}{3}x^3 - \frac{1}{2}x^2 - 2x + \frac{2}{3}$		$f'(x) = x^2 - x - 2$

f19.gif		a19.gif	
	$f(x) = -x^3 + 6x^2 - 8x + 1$		$f'(x) = -3x^2 + 12x - 8$
f20.gif		a20.gif	
	$f(x) = \frac{1}{5}x^3 - x^2 + \frac{3}{10}x + 1$		$f'(x) = \frac{3}{5}x^2 - 2x + 3$
f21.gif		a21.gif	
	$f(x) = \frac{1}{2}x^3 - \frac{1}{2}x^2 - \frac{5}{2}x + 1$		$f'(x) = \frac{3}{2}x^2 - x - \frac{5}{2}$
f22.gif		a22.gif	
	$f(x) = \frac{1}{10}x^4 - \frac{3}{10}x^3 - \frac{1}{5}x^2 - \frac{1}{10}x - 1$		$f'(x) = \frac{2}{5}x^3 - \frac{9}{10}x^2 - \frac{5}{2}x - \frac{1}{10}$
f23.gif		a23.gif	
	$f(x) = -\frac{1}{5}x^3 + \frac{7}{10}x^2 - \frac{5}{12}x - 2$		$f'(x) = -\frac{3}{5}x^2 + \frac{7}{5}x - \frac{5}{12}$

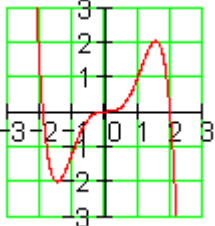
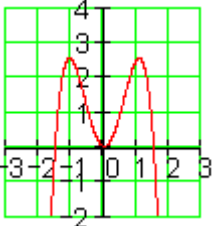
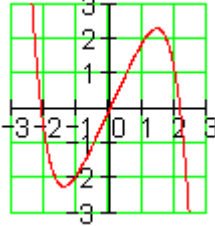
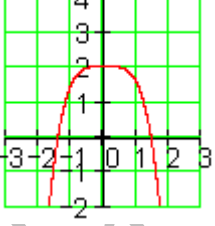
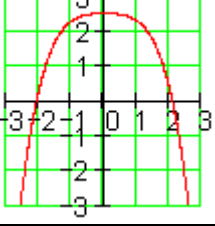
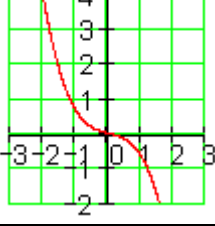
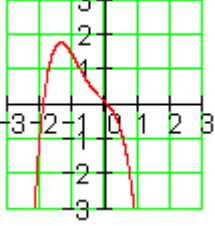
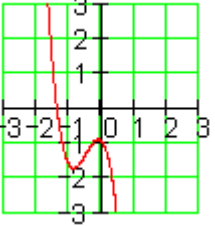
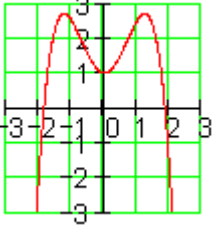
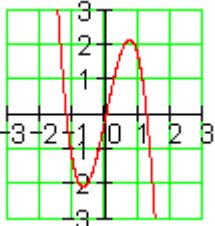
f24.gif		a24.gif	
	$f(x) = \frac{1}{2}x^4 - \frac{3}{4}x^3 - \frac{3}{2}x^2 + 2x + 1$		$f'(x) = 2x^3 - \frac{9}{4}x^2 - 3x + 2$
f25.gif		a25.gif	
	$f(x) = \frac{1}{2}x^3 - \frac{1}{2}x^2 - \frac{5}{2}x + 1$		$f'(x) = \frac{3}{2}x^2 - x - \frac{5}{2}$
f26.gif		a26.gif	
	$f(x) = x^4 + 2x^3 + \frac{2}{3}x^2 + x$		$f'(x) = 4x^3 + 6x^2 + \frac{4}{3}x + 1$
f27.gif		a27.gif	
	$f(x) = \frac{3}{4}x^4 - \frac{9}{4}x^2 - 1$		$f'(x) = 3x^3 - \frac{9}{2}x$
f28.gif		a28.gif	
	$f(x) = x^3 + 2x^2 - x - 2$		$f'(x) = 3x^2 + 4x - 1$

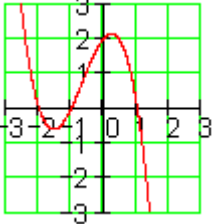
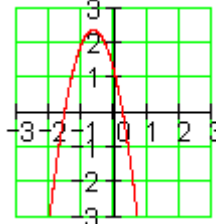
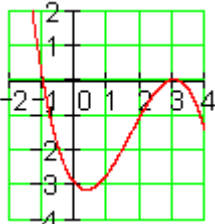
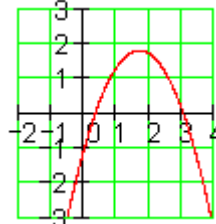
f29.gif		a29.gif	
	$f(x) = \frac{1}{3}x^3 - \frac{5}{3}x^2 + x + 3$		$f'(x) = x^2 - \frac{11}{3}x + 1$
f30.gif		a30.gif	
	$f(x) = -\frac{3}{10}x^4 + \frac{3}{2}x^2 - 1$		$f'(x) = \frac{6}{5}x^3 + 3x$
f31.gif		a31.gif	
	$f(x) = x^4 - x^3 - 2x^2$		$f'(x) = 4x^3 - 3x^2 - 4x$
f32.gif		a32.gif	
	$f(x) = \frac{1}{2}x^3 + 3x^2 + \frac{9}{2}x$		$f'(x) = \frac{3}{2}x^2 + 6x + \frac{9}{2}$
f33.gif		a33.gif	
	$f(x) = \frac{1}{4}x^4 - \frac{1}{2}x^2 - \frac{3}{4}$		$f'(x) = x^3 - x$

f34.gif		a34.gif	
	$f(x) = x^4 - \frac{5}{2}x^2 + 2$		$f'(x) = 4x^3 - 5x$
f35.gif		a35.gif	
	$f(x) = \frac{1}{12}x^4 - \frac{1}{6}x^3 - \frac{1}{2}x^2$		$f'(x) = \frac{1}{3}x^3 - \frac{1}{2}x^2 - x$
f36.gif		a36.gif	
	$f(x) = \frac{1}{8}x^4 - \frac{3}{4}x^3 + x^2$		$f'(x) = \frac{1}{2}x^3 - \frac{9}{4}x^2 + 2x$
f37.gif		a37.gif	
	$f(x) = \frac{1}{4}x^4 + x^3 - 3x^2$		$f'(x) = x^3 + 3x^2 - 6x$
f38.gif		a38.gif	
	$f(x) = \frac{1}{4}x^4 - 2x$		$f'(x) = x^3 - 2$



f39.gif		a39.gif	
	$f(x) = \frac{1}{12}x^4 - \frac{1}{3}x^3 + \frac{9}{4}$		$f'(x) = \frac{1}{3}x^3 - x^2$
f40.gif		a40.gif	
	$f(x) = \frac{1}{4}x^4 - x^3 - \frac{1}{3}x^2 + 3x + 3$		$f'(x) = x^3 - 3x^2 - \frac{2}{3}x + 3$
f41.gif		a41.gif	
	$f(x) = \frac{1}{8}x^4 - \frac{1}{8}x^3 - x^2 + x$		$f'(x) = \frac{1}{2}x^3 - \frac{3}{8}x^2 - 2x + 1$
f42.gif		a42.gif	
	$f(x) = \frac{1}{4}x^4 - x^3 + \frac{7}{2}x^2 + 1$		$f'(x) = x^3 - 3x^2 - 7x$
f43.gif		a43.gif	
	$f(x) = \frac{1}{4}x^4 - \frac{1}{4}x^3 - \frac{3}{4}x^2$		$f'(x) = x^3 - \frac{3}{4}x^2 - \frac{3}{2}x$

f44.gif		a44.gif	
	$f(x) = -\frac{4}{10}x^5 + \frac{3}{2}x^3$		$f'(x) = -2x^4 + \frac{9}{2}x^2$
f45.gif		a45.gif	
	$f(x) = -\frac{4}{10}x^5 + 2x$		$f'(x) = -\frac{1}{2}x^4 + 2$
f46.gif		a46.gif	
	$f(x) = -\frac{1}{9}x^4 - \frac{1}{9}x^2 + \frac{5}{2}$		$f'(x) = -\frac{4}{9}x^3 - \frac{2}{9}x$
f47.gif		a47.gif	
	$f(x) = -x^4 - 2x^3 - \frac{2}{3}x^2 - x$		$f'(x) = -4x^3 - 6x^2 - \frac{4}{3}x - 1$
f48.gif		a48.gif	
	$f(x) = -\frac{3}{4}x^4 + \frac{9}{4}x^2 + 1$		$f'(x) = -3x^3 + \frac{9}{2}x$

f49.gif		a49.gif	
	$f(x) = -x^3 - 2x^2 + x + 2$		$f'(x) = -3x^2 - 4x + 1$
f50.gif		a50.gif	
	$f(x) = -\frac{1}{3}x^3 + \frac{5}{3}x^2 - x - 3$		$f'(x) = -x^2 + \frac{10}{3}x - 1$

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