

Berechne die mittlere Steigung im Intervall

			Lösung
1)	$f(x) = 6x^2$	[4;6]	$m = \frac{216 - 96}{6 - 4} = \frac{120}{2}$
2)	$f(x) = 2x^2 - 5$	[4;7]	$m = \frac{93 - 27}{7 - 4} = \frac{66}{3}$
3)	$f(x) = 6x^2 + 4$	[6;11]	$m = \frac{730 - 220}{11 - 6} = \frac{510}{5}$
4)	$f(x) = 4x^2 + 12$	[-1;1]	$m = \frac{16 - 16}{1 - (-1)} = \frac{0}{2}$
5)	$f(x) = -3x^2 - 7$	[-4;-1]	$m = \frac{-10 - (-55)}{-1 - (-4)} = \frac{45}{3}$
6)	$f(x) = 3x^2 + 5x + 9$	[0;2]	$m = \frac{31 - 9}{2 - 0} = \frac{22}{2}$
7)	$f(x) = 7x^2 - 6x - 6$	[0;3]	$m = \frac{39 - (-6)}{3 - 0} = \frac{45}{3}$
8)	$f(x) = 1x^2 + 9x - 5$	[-4;1]	$m = \frac{5 - (-25)}{1 - (-4)} = \frac{30}{5}$
9)	$f(x) = 3x^2 + 7x + 9$	[-1;2]	$m = \frac{35 - 5}{2 - (-1)} = \frac{30}{3}$
10)	$f(x) = 3x^3$	[3;8]	$m = \frac{1536 - 81}{8 - 3} = \frac{1455}{5}$
11)	$f(x) = 9x^3 - 8$	[2;5]	$m = \frac{1117 - 64}{5 - 2} = \frac{1053}{3}$
12)	$f(x) = 7x^3 + 2x^2$	[6;11]	$m = \frac{9559 - 1584}{11 - 6} = \frac{7975}{5}$
13)	$f(x) = 6x^3 - 6x^2 + 12x$	[5;7]	$m = \frac{1848 - 660}{7 - 5} = \frac{1188}{2}$
14)	$f(x) = -2x^3 - 7x^2 - 12x$	[5;8]	$m = \frac{-1568 - (-485)}{8 - 5} = \frac{-1083}{3}$
15)	$f(x) = -4x^3 + 3x^2 - 12x$	[-2;3]	$m = \frac{-117 - 68}{3 - (-2)} = \frac{-185}{5}$
16)	$f(x) = -2x^3 + 7x^2 + 12x + 3$	[1;2]	$m = \frac{39 - 17}{2 - 1} = \frac{22}{1}$
17)	$f(x) = -3x^3 + 4x^2 - 5x - 10$	[-4;-1]	$m = \frac{2 - 276}{-1 - (-4)} = \frac{-274}{3}$