15.9 1)

	περίοδος	μέγιστο	ελάχιστο	θέση μεγίστου	θέση ελαχίστου	γνησίως αύξουσα	γνησίως φθίνουσα
1 $f(x)=\eta\mu x$	2π	1	-1	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
2 $f(x)=\eta\mu x+5$	2π	6	4	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
3 $f(x)=\eta\mu x-6$	2π	-5	-7	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
4 $f(x)=\eta\mu x+8$	2π	9	7	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
5 $f(x)=\eta\mu x-9$	2π	-10	-8	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
6 $f(x)=\eta\mu x+\alpha$	2π	$\alpha+1$	$\alpha-1$	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
7 $f(x)=-\eta\mu x$	2π	1	-1	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
8 $f(x)=-\eta\mu x+7$	2π	8	6	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
9 $f(x)=-\eta\mu x-3$	2π	-2	-4	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
10 $f(x)=-\eta\mu x+4$	2π	5	3	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
11 $f(x)=-\eta\mu x-2$	2π	-1	-3	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
12 $f(x)=-\eta\mu x+\alpha$	2π	$\alpha+1$	$\alpha-1$	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
13 $f(x)=2\eta\mu x$	2π	2	-2	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
14 $f(x)=5\eta\mu x$	2π	5	-5	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
15 $f(x)=6\eta\mu x$	2π	6	-6	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
16 $f(x)=8\eta\mu x$	2π	8	-8	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
17 $f(x)=\alpha\eta\mu x$	2π	α	$-\alpha$	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
18 $f(x)=-9\eta\mu x$	2π	9	-9	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
19 $f(x)=-4\eta\mu x$	2π	4	-4	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$
20 $f(x)=-5\eta\mu x$	2π	5	-5	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right]$, $\left[\frac{3\pi}{2},2\pi\right]$

	περίοδος	μέγιστο	ελάχιστο	θέση μεγίστου	θέση ελαχίστου	γνησίως αύξουσα	γνησίως φθίνουσα
21 $f(x)=-8\eta\mu x$	2π	8	-8	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
22 $f(x)=-\alpha\eta\mu x$	2π	α	$-\alpha$	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
23 $f(x)=3\eta\mu x+9$	2π	12	6	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
24 $f(x)=4\eta\mu x-7$	2π	-3	-11	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
25 $f(x)=2\eta\mu x+8$	2π	10	6	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
26 $f(x)=5\eta\mu x-6$	2π	-1	-11	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
27 $f(x)=-3\eta\mu x+4$	2π	7	1	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
28 $f(x)=-5\eta\mu x-2$	2π	3	-7	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
29 $f(x)=-7\eta\mu x+5$	2π	12	-2	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
30 $f(x)=-4\eta\mu x+8$	2π	12	4	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
31 $f(x)=\alpha\eta\mu x+\beta$	2π	$\beta+\alpha$	$\beta-\alpha$	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
32 $f(x)=-\alpha\eta\mu x+\beta$	2π	$\beta+\alpha$	$\beta-\alpha$	$\frac{3\pi}{2}$	$\frac{\pi}{2}$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$
33 $f(x)=\eta\mu 2x$	π	1	-1	$\frac{\pi}{4}$	$\frac{3\pi}{4}$	$\left[0,\frac{\pi}{4}\right],\left[\frac{3\pi}{4},\pi\right]$	$\left[\frac{\pi}{4},\frac{3\pi}{4}\right]$
34 $f(x)=\eta\mu\frac{1}{3}x$	6π	1	-1	$\frac{3\pi}{2}$	$\frac{9\pi}{2}$	$\left[0,\frac{3\pi}{2}\right],\left[\frac{9\pi}{2},6\pi\right]$	$\left[\frac{3\pi}{2},\frac{9\pi}{2}\right]$
35 $f(x)=\eta\mu 5x$	$\frac{2\pi}{5}$	1	-1	$\frac{\pi}{10}$	$\frac{3\pi}{10}$	$\left[0,\frac{\pi}{10}\right],\left[\frac{3\pi}{10},\frac{\pi}{5}\right]$	$\left[\frac{\pi}{10},\frac{3\pi}{10}\right]$
36 $f(x)=\eta\mu\frac{2}{5}x$	5π	1	-1	$\frac{5\pi}{4}$	$\frac{15\pi}{4}$	$\left[0,\frac{5\pi}{4}\right],\left[\frac{15\pi}{4},5\pi\right]$	$\left[\frac{5\pi}{4},\frac{15\pi}{4}\right]$
37 $f(x)=\eta\mu\alpha x$	$\frac{2\pi}{\alpha}$	1	-1	$\frac{\pi}{2\alpha}$	$\frac{3\pi}{2\alpha}$	$\left[0,\frac{\pi}{2\alpha}\right],\left[\frac{3\pi}{2\alpha},\frac{2\pi}{\alpha}\right]$	$\left[\frac{\pi}{2\alpha},\frac{3\pi}{2\alpha}\right]$
38 $f(x)=\eta\mu 3x+1$	$\frac{2\pi}{3}$	2	0	$\frac{\pi}{6}$	$\frac{\pi}{2}$	$\left[0,\frac{\pi}{6}\right],\left[\frac{\pi}{2},\frac{2\pi}{3}\right]$	$\left[\frac{\pi}{6},\frac{\pi}{2}\right]$
39 $f(x)=\eta\mu\frac{1}{2}x-4$	4π	-3	-5	π	3π	$[0,\pi],[3\pi,6\pi]$	$[\pi,3\pi]$
40 $f(x)=\eta\mu\frac{3}{4}x+5$	$\frac{8\pi}{3}$	6	4	$\frac{2\pi}{3}$	2π	$\left[0,\frac{2\pi}{3}\right],\left[2\pi,\frac{8\pi}{3}\right]$	$\left[\frac{2\pi}{3},2\pi\right]$

		περίοδος	μέγιστο	ελάχιστο	θέση μεγίστου	θέση ελαχίστου	γνησίως αύξουσα	γνησίως φθίνουσα
41	$f(x)=\eta\mu 8x-3$	2π	1	-1	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\left[0,\frac{\pi}{2}\right],\left[\frac{3\pi}{2},2\pi\right]$	$\left[\frac{\pi}{2},\frac{3\pi}{2}\right]$
42	$f(x)=\eta\mu\alpha x+\beta$	$\frac{2\pi}{\alpha}$	$\beta+1$	$\beta-1$	$\frac{\pi}{2\alpha}$	$\frac{3\pi}{2\alpha}$	$\left[0,\frac{\pi}{2\alpha}\right],\left[\frac{3\pi}{2\alpha},\frac{2\pi}{\alpha}\right]$	$\left[\frac{\pi}{2\alpha},\frac{3\pi}{2\alpha}\right]$
43	$f(x)=7\eta\mu\frac{1}{4}x$	8π	7	-7	2π	6π	$[0,2\pi],[6\pi,8\pi]$	$[2\pi,6\pi]$
44	$f(x)=-2\eta\mu 9x$	$\frac{2\pi}{9}$	2	-2	$\frac{\pi}{6}$	$\frac{\pi}{18}$	$\left[\frac{\pi}{18},\frac{\pi}{6}\right]$	$\left[0,\frac{\pi}{18}\right],\left[\frac{\pi}{6},\frac{2\pi}{9}\right]$
45	$f(x)=-4\eta\mu\frac{3}{2}x$	$\frac{4\pi}{3}$	4	-4	π	3π	$\left[\frac{\pi}{3},\pi\right]$	$\left[0,\frac{\pi}{3}\right],\left[\pi,\frac{4\pi}{3}\right]$
46	$f(x)=3\eta\mu 4x$	$\frac{\pi}{2}$	3	-3	$\frac{\pi}{8}$	$\frac{3\pi}{8}$	$\left[0,\frac{\pi}{8}\right],\left[\frac{3\pi}{8},\frac{\pi}{2}\right]$	$\left[\frac{\pi}{8},\frac{3\pi}{8}\right]$
47	$f(x)=\alpha\eta\mu\beta x$	$\frac{2\pi}{\beta}$	α	$-\alpha$	$\frac{\pi}{2\beta}$	$\frac{3\pi}{2\beta}$	$\left[0,\frac{\pi}{2\beta}\right],\left[\frac{3\pi}{2\beta},\frac{2\pi}{\beta}\right]$	$\left[\frac{\pi}{2\beta},\frac{3\pi}{2\beta}\right]$
48	$f(x)=-\alpha\eta\mu\beta x$	$\frac{2\pi}{\beta}$	α	$-\alpha$	$\frac{3\pi}{2\beta}$	$\frac{\pi}{2\beta}$	$\left[\frac{\pi}{2\beta},\frac{3\pi}{2\beta}\right]$	$\left[0,\frac{\pi}{2\beta}\right],\left[\frac{3\pi}{2\beta},\frac{2\pi}{\beta}\right]$
49	$f(x)=5\eta\mu 2x+6$	π	11	1	$\frac{\pi}{4}$	$\frac{3\pi}{4}$	$\left[0,\frac{\pi}{4}\right],\left[\frac{3\pi}{4},\pi\right]$	$\left[\frac{\pi}{4},\frac{3\pi}{4}\right]$
50	$f(x)=-3\eta\mu 4x+2$	$\frac{\pi}{2}$	5	-1	$\frac{3\pi}{8}$	$\frac{\pi}{8}$	$\left[\frac{\pi}{8},\frac{3\pi}{8}\right]$	$\left[0,\frac{\pi}{8}\right],\left[\frac{3\pi}{8},\frac{\pi}{2}\right]$
51	$f(x)=9\eta\mu 6x-3$	$\frac{\pi}{3}$	6	-12	$\frac{\pi}{12}$	$\frac{\pi}{4}$	$\left[0,\frac{\pi}{12}\right],\left[\frac{\pi}{4},\frac{\pi}{3}\right]$	$\left[\frac{\pi}{12},\frac{\pi}{4}\right]$
52	$f(x)=2\eta\mu\frac{1}{3}x+4$	6π	6	2	$\frac{3\pi}{2}$	$\frac{9\pi}{2}$	$\left[0,\frac{3\pi}{2}\right],\left[\frac{9\pi}{2},6\pi\right]$	$\left[\frac{3\pi}{2},\frac{9\pi}{2}\right]$
53	$f(x)=-4\eta\mu\frac{1}{6}x-5$	12π	-1	-9	9π	3π	$[3\pi,9\pi]$	$[0,3\pi],[9\pi,12\pi]$
54	$f(x)=-7\eta\mu 9x-8$	$\frac{2\pi}{9}$	-1	-15	$\frac{\pi}{6}$	$\frac{\pi}{18}$	$\left[\frac{\pi}{18},\frac{\pi}{6}\right]$	$\left[0,\frac{\pi}{18}\right],\left[\frac{\pi}{6},\frac{2\pi}{9}\right]$
55	$f(x)=6\eta\mu\frac{4}{3}x+1$	$\frac{3\pi}{2}$	7	-5	$\frac{3\pi}{8}$	$\frac{9\pi}{8}$	$\left[0,\frac{3\pi}{8}\right],\left[\frac{9\pi}{8},\frac{3\pi}{2}\right]$	$\left[\frac{3\pi}{8},\frac{9\pi}{8}\right]$
56	$f(x)=\alpha\eta\mu\beta\, x+\gamma$	$\frac{2\pi}{\beta}$	$\gamma+\alpha$	$\gamma-\alpha$	$\frac{\pi}{2\beta}$	$\frac{3\pi}{2\beta}$	$\left[0,\frac{\pi}{2\beta}\right],\left[\frac{3\pi}{2\beta},\frac{2\pi}{\beta}\right]$	$\left[\frac{\pi}{2\beta},\frac{3\pi}{2\beta}\right]$
57	$f(x)=-\alpha\eta\mu\beta\, x+\gamma$	$\frac{2\pi}{\beta}$	$\gamma+\alpha$	$\gamma-\alpha$	$\frac{3\pi}{2\beta}$	$\frac{\pi}{2\beta}$	$\left[\frac{\pi}{2\beta},\frac{3\pi}{2\beta}\right]$	$\left[0,\frac{\pi}{2\beta}\right],\left[\frac{3\pi}{2\beta},\frac{2\pi}{\beta}\right]$