Disequazioni goniometriche

	elementari	
1	$senx > \frac{1}{2}$	$\frac{\pi}{6} + 2k\pi < x < \frac{5}{6}\pi + 2k\pi$
2	$tgx > \sqrt{3}$	$\frac{\pi}{3} + k\pi < x < \frac{\pi}{2} + k\pi$
3	$cosx > -\frac{1}{2}$	$-\frac{2}{3}\pi + 2k\pi < x < \frac{2}{3}\pi + 2k\pi$
4	$cotgx < -1$	$\frac{3}{4}\pi + k\pi < x < (k+1)\pi$
5	$2senx + \sqrt{2} > 0$	$-\frac{\pi}{4} + 2k\pi < x < \frac{5}{4}\pi + 2k\pi$
6	$2cosx + \sqrt{2} > 0$	$-\frac{3}{4}\pi + 2k\pi < x < \frac{3}{4}\pi + 2k\pi$
7	$tgx < -\sqrt{3}$	$\frac{\pi}{2} + k\pi < x < \frac{2}{3}\pi + k\pi$
8	$tgx < 2 + \sqrt{3}$	$-\frac{\pi}{2} + k\pi < x < \frac{5}{12}\pi + k\pi$
9	$3senx - 10 > 0$	*impossibile*
10	$2cosx + \sqrt{3} \geq 0$	$-\frac{5}{6}\pi + 2k\pi \leq x \leq \frac{5}{6}\pi + 2k\pi$
11	$cotgx < -\frac{\sqrt{3}}{3}$	$\frac{2}{3}\pi + k\pi < x < (k+1)\pi$

	di secondo grado	
12	$2sen^2x + 5cosx - 4 > 0$	$-\frac{\pi}{3} + 2k\pi < x < \frac{\pi}{3} + 2k\pi$
13	$2sen^2x - \sqrt{2}senx > 0$	$\frac{\pi}{4} + 2k\pi < x < \frac{3}{4}\pi + 2k\pi \cup (2k+1)\pi < x < 2(k+1)\pi$
14	$3tg^2x - 1 > 0$	$\frac{\pi}{6} + k\pi < x < \frac{\pi}{2} + k\pi \cup \frac{\pi}{2} + k\pi < x < \frac{5}{6}\pi + k\pi$
15	$2cos^2x - \sqrt{2}cosx > 0$	$\frac{\pi}{2} + 2k\pi < x < \frac{3}{2}\pi + 2k\pi \cup -\frac{\pi}{4} + 2k\pi < x < \frac{\pi}{4} + 2k\pi$
16	$8cos^2x + 2cosx - 3 < 0$	$-arccos\left(-\frac{3}{4}\right) + 2k\pi < x < -\frac{\pi}{3} + 2k\pi \cup$ $\frac{\pi}{3} + 2k\pi < x < arccos\left(-\frac{3}{4}\right) + 2k\pi$
17	$tg^2x + 2tgx + 3 < 0$	*impossibile*
18	$2cos^2x - senx - 1 < 0$	$\frac{\pi}{6} + 2k\pi < x < \frac{5}{6}\pi + 2k\pi$
19	$3cotg^2x - 4\sqrt{3}cotgx + 3 > 0$	$\frac{\pi}{3} + k\pi < x < (k+1)\pi \cup (k+1)\pi < x < \frac{7}{6}\pi + k\pi$
20	$tg^2x + (\sqrt{3}+1)tgx + \sqrt{3} > 0$	$x \neq k\pi \cup x \neq \pm\frac{\pi}{2}$
21	$2cos^2x + \sqrt{3}senx - 2 > 0$	$2k\pi < x < \frac{\pi}{3} + 2k\pi \cup \frac{2}{3}\pi + 2k\pi < x < (2k+1)\pi$

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22	$cos2x + senx \geq 0$	$-\frac{\pi}{6} + 2k\pi \leq x \leq \frac{7}{6}\pi + 2k\pi$
	lineari	
23	$\sqrt{3}senx + 3cosx > 0$	$-\frac{\pi}{3} + 2k\pi < x < \frac{2}{3}\pi + 2k\pi$
24	$\sqrt{3}senx + 3cosx - \sqrt{3} > 0$	$-\frac{\pi}{6} + 2k\pi < x < \frac{\pi}{2} + 2k\pi$
25	$\sqrt{3}senx - cosx - 1 < 0$	$-\pi + 2k\pi < x < \frac{\pi}{3} + 2k\pi$
26	$cosx + \sqrt{3}senx - \sqrt{3} > 0$	$\frac{\pi}{6} + 2k\pi < x < \frac{\pi}{2} + 2k\pi$
27	$cosx - senx + 1 > 0$	$-\pi + 2k\pi < x < \frac{\pi}{2} + 2k\pi$
28	$cosx + senx - \sqrt{2} \geq 0$	$x = \frac{\pi}{4} + 2k\pi$
29	$cosx + \sqrt{3}senx - \sqrt{3} \geq 0$	$\frac{\pi}{6} + 2k\pi \leq x \leq \frac{\pi}{2} + 2k\pi$
30	$sen\left(x - \frac{\pi}{3}\right) + cos\left(\frac{4}{3}\pi - x\right) - 1 < 0$	$-\frac{2}{3}\pi + 2k\pi < x < \frac{5}{6}\pi + 2k\pi$
31	$sen2x - cosx + 1 > 2senx$	$2k\pi < x < \frac{\pi}{6} + 2k\pi \cup \frac{5}{6}\pi + 2k\pi < x < 2k\pi$
32	$2cosx - 2sen\left(-x - \frac{2}{3}\pi\right) - 1 < 0$	$-\pi + 2k\pi < x < \frac{\pi}{2} + 2k\pi \cup \frac{\pi}{3} + 2k\pi < x < \pi + 2k\pi$
	omogenee di secondo grado (o riconducibili ad omogenee)	
33	$sen^2x - 3cos^2x \leq 0$	$-\frac{\pi}{3} + 2k\pi \leq x \leq \frac{\pi}{3} + 2k\pi$
34	$cos^2x + \left(\sqrt{3} - 1\right)senxcosx - \sqrt{3}sen^2x > 0$	$-\frac{\pi}{6} + k\pi < x < \frac{\pi}{4} + k\pi$
35	$3sen^2x - 2senxcosx - cos^2x < 0$	$-arctg\frac{1}{3} + k\pi < x < \frac{\pi}{4} + k\pi$
36	$sen^2x - \left(\sqrt{3} + 1\right)senxcosx + \sqrt{3}cos^2x > 0$	$-\frac{2}{3}\pi + k\pi < x < \frac{\pi}{4} + k\pi$
37	$sen^2x + 4senxcosx + 3cos^2x > 0$	$-\frac{\pi}{4} + k\pi < x < \pi - arctg3 + k\pi$
38	$2\sqrt{3}cos^2x - 2senxcosx - \sqrt{3} \leq 0$	$\frac{\pi}{6} + k\pi < x < \frac{2}{3}\pi + k\pi$
39	$3cos^2x + 2sen2x + 2sen^2x > 2$	$-arctg\frac{1}{4} + k\pi < x < \frac{\pi}{2} + k\pi$
40	$sen^2x + 4senxcosx + cos^2x < 0$	$\frac{\pi}{12} + k\pi < x < \frac{5}{12}\pi + k\pi$
41	$5sen^2x - \sqrt{3}sen2x - cos^2x < 2$	$-\frac{\pi}{6} + k\pi < x < \frac{\pi}{3} + k\pi$
42	$3sen^2x + \sqrt{3}sen2x + cos^2x > 0$	$\forall x \in \Re - \left\{\frac{5}{6}\pi + k\pi\right\}$

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43	$(3+\sqrt{3})sen^2x+(\sqrt{3}-1)senxcosx+2cos^2>3$	$\frac{\pi}{6}+k\pi<x<\frac{3}{4}\pi+k\pi$

di riepilogo		
44	$3\,tg\,x>\sqrt{3}$	$\frac{\pi}{6}+k\pi<x<\frac{\pi}{2}+k\pi$
45	$2\,sen\,x-\sqrt{3}\geq 0$	$\frac{\pi}{3}+2k\pi\leq x\leq\frac{2}{3}\pi+2k\pi$
46	$cos\,x-2\geq 0$	*impossibile*
47	$2\,sen\,x+\sqrt{3}>0$	$-\frac{\pi}{3}+2k\pi<x<\frac{4}{3}\pi+2k\pi$
48	$2\,sen^2x-(2-\sqrt{3})\,sen\,x-\sqrt{3}\leq 0$	$-\frac{\pi}{3}+2k\pi\leq x\leq\frac{4}{3}\pi+2k\pi$
49	$cos^2x+cos\,x\geq 0$	$-\frac{\pi}{2}+2k\pi\leq x\leq\frac{\pi}{2}+2k\pi\cup$ $x=\pi+2k\pi$
50	$cos^2x+1\leq 0$	*impossibile*
51	$2\,cos^2x+3\,cos\,x+1>0$	$-\frac{2}{3}\pi+2k\pi<x<\frac{2}{3}\pi+2k\pi$
52	$2\,sen^2x-sen\,x-1>0$	$-\frac{5}{6}\pi+2k\pi<x<-\frac{\pi}{6}+2k\pi$
53	$2\,sen^2x-3\,sen\,x+1<0$	$\frac{\pi}{6}+2k\pi<x<\frac{5}{6}\pi+2k\pi, x\neq\frac{\pi}{2}$
54	$2\,cos^2x-3\,cos\,x+1<0$	$-\frac{\pi}{3}+2k\pi<x<\frac{\pi}{3}+2k\pi, x\neq 0$
55	$cos\,2x+cos\,x<0$	$\frac{\pi}{3}+2k\pi<x<\frac{5}{3}\pi+2k\pi, x\neq\pi$
56	$sen\,x\,cos\,x>0$	$k\pi<x<\frac{\pi}{2}+k\pi$
57	$4\,sen^2x-2\sqrt{3}\,sen\,x\,cos\,x-2\,cos^2x-1>0$	$\frac{\pi}{3}+k\pi<x<\frac{5}{6}\pi+k\pi\cup x\neq\frac{\pi}{2}+k\pi$
58	$sen^2x+sen\,x\,cos\,x<0$	$-\frac{\pi}{4}+k\pi<x<k\pi$
59	$\sqrt{3}\,sen\,x-cos\,x\leq 0$	$-\frac{5}{6}\pi+2k\pi\leq x\leq\frac{\pi}{6}+2k\pi$
60	$\sqrt{3}\,cos\,x-sen\,x+1\geq 0$	$-\frac{5}{6}\pi+2k\pi\leq x\leq\frac{\pi}{2}+2k\pi$
61	$sen^4x-cos^4x<0$	$-\frac{\pi}{4}+k\pi<x<\frac{\pi}{4}+k\pi$
62	$2\,sen^2x+4\,cos^2x>5\,cos\,x$	$\frac{\pi}{3}+2k\pi<x<\frac{5}{3}+2k\pi$
63	$cos^2x+2\,cos\,x<0$	$\frac{\pi}{2}+2k\pi<x<\frac{3}{2}\pi+2k\pi$