



VERIFICA DI MATEMATICA

CLASSI 3^A – 6 Ottobre 2007

COGNOME _____ NOME _____

1. $\operatorname{tg} x + \sqrt{3} < 0$

$$\frac{\pi}{2} + k\pi < x < \frac{2}{3}\pi + k\pi$$

2. $\cos\left(x + \frac{\pi}{3}\right) \leq 0$

$$\frac{\pi}{6} + 2k\pi \leq x \leq \frac{7}{6}\pi + 2k\pi$$

3. $2 \operatorname{sen}^2 x - \sqrt{3} \operatorname{sen} x \geq 0$

$$\frac{\pi}{3} + 2k\pi \leq x \leq \frac{2}{3}\pi + 2k\pi \quad \vee \quad \pi + 2k\pi \leq x \leq 2\pi + 2k\pi$$

4. $\operatorname{tg}^2 x + \operatorname{tg} x < 0$

$$\frac{3}{4}\pi + k\pi < x < \pi + k\pi$$

5. $\operatorname{sen} x + \sqrt{3} \cos x - \sqrt{3} > 0$

$$2k\pi < x < \frac{\pi}{3} + 2k\pi$$

6. $\cos\left(x + \frac{\pi}{4}\right) - \sqrt{3} \operatorname{sen}\left(x + \frac{\pi}{4}\right) - \sqrt{3} > 0$

$$\frac{5}{4}\pi + 2k\pi < x < \frac{19}{6}\pi + 2k\pi$$

7. $\cos x - \operatorname{sen} x > 0$

$$-\frac{3}{4}\pi + 2k\pi < x < \frac{\pi}{4} + 2k\pi$$

8. $6 \operatorname{sen}^2 x - 2\sqrt{3} \operatorname{sen} x \cos x > 3$

$$\frac{\pi}{3} + k\pi < x < \frac{5}{6}\pi + k\pi$$

9. $\frac{x^2 + 4x + 4}{2x - 1} < 0$

$$x < \frac{1}{2} \wedge x \neq -2$$

10. $x^2 - 5x + 7 > 0$

$$\forall x \in \mathbb{R}$$

11.
$$\begin{cases} x^2 - 5x \geq 0 \\ x^2 - 9 < 0 \\ x^2 - 12x + 36 > 0 \end{cases}$$

$$-3 < x \leq 0$$

1	2	3	4	5	6	7	8	9	10	11
1,5	2	2,5	2	3,5	4	2	3,5	2	1	4

Totale punti 28. Sufficienza con punti 15.

BUON LAVORO!!!