

1 $-x^2 + 2x + 3 = 0$

2 $3x^2 - x + 1 = 0$

5 $2 + 7x^2 - 3x = 0$

7 $3x^2 - 2 = 0$

9 $16x^2 = 1$

11 $3x - 5x^2 = 0$

13 $9x^2 = 0$

15 $x^2 = 4(x-1)$

PE:

2 $1 - 5x^2 = 0$

4 $4x^2 - 3x + 2 = 0$

6 $2x - 3x^2 = 0$

8 $4 - x^2 = 0$

10 $6x^2 - 6x = 0$

12 $2(x^2 - 3x) + 3 = 3(1 - 2x)$

14 $x^2 - x + 2 = 0$

DISEQUAZIONI DI 2° GRADO

1 $(2x + 5) / (1 - x) > 0$

3 $2x / (3 - x) < 0$

5 $(x + 1) / (2x + 1) \geq 0$

7 $x^2 - 2x + 1 \geq 0$

9 $x^2 - 9 < 0$

11 $(3x - 1) / (x + 2) > 0$

13 $(4x + 1) / (2 - x) > 0$

15 $3x^2 + 4 > 0$

2 $(2x - 1) / (3 - x) > 0$

4 $x / (2 - 3x) > 0$

6 $3x(2x + 5) \geq 0$

8 $4x^2 + 4x + 1 \leq 0$

10 $x^2 - 4x - 5 > 0$

12 $(x - 3) / (3 + x) < 0$

14 $9x^2 - 1 < 0$

PRODOTTI NOTTEVALI

1 $(3x - 2)^2$

3 $(2x + 3)^2$

5 $(4x + 1) / (4x - 1)$

7 $(x + 4) / (x - 4)$

9 $(2x - 3)^2$

11 $(3x + 2)^2$

13 $(3a - 1)^2 - b^2$

15 $(x + 4)^2 - (a + b)^2$

2 $(2x + 1)^3$

4 $(x - 3)^3$

6 $(\frac{2}{3}x + 1)^3$

8 $(2x + \frac{1}{2})^3$

10 $(12a + 3b + 5c)^2$

12 $(5x + 2)^3$

14 $(10 - x)^3$

EQUAZIONI DI 2° GRADO Pt 1

1) $3x^2 + 5x = 0$

$6x^2 - 12x = 0$

$[0 \text{ e } -\frac{5}{3} / 0 \text{ e } 2]$

2) $(x-1)^2 - 3x + 1$

$9x^2 - 3x = 0$

$[0 \text{ e } 5 / 0 \text{ e } \frac{1}{3}]$

3) $2x^2 - x = 0$

$x^2 - 3x = 0$

$[0 \text{ e } \frac{1}{2} / 0 \text{ e } 3]$

4) $(x+7)(1-x) = (x-2)(9+x) + 36 - 8(x+7)$

$[\pm 5]$

5) $(x - \frac{1}{5})(x + \frac{1}{5}) = 0$

$[\pm \frac{1}{5}]$

6) $(\frac{1}{2}x + 1)^2 = 4$

$9(x-1)^2 = 4$

$[-6 \text{ e } 2 / \frac{1}{3} \text{ e } \frac{5}{3}]$

7) $x^2 - 5x + 6 = 0$

$x^2 - 6x + 8 = 0$

$[2 \text{ e } 3 / 2 \text{ e } 4]$

8) $x^2 - 7x + 12 = 0$

$x^2 - 7x + 10 = 0$

$[3 \text{ e } 4 / 2 \text{ e } 5]$

9) $2x + 8x - 20$

$x^2 = 4x - 29$

$[0 / 0]$

10) $(x-1)(x-2) + (x-3)^2 = 16 + (x-3)(x-5)$

$[5 \text{ e } -4]$

11) $\frac{4(x-8)}{x-4} + \frac{4x}{x-4} - x - 4 = 0$

$[\text{impossibile}]$

12) $\frac{x+1}{x-1} + \frac{x+2}{x+1} = \frac{13}{3}$

$[-\frac{5}{3} \text{ e } 2]$

13) $(2x-1)^2 = 9$

$[-1 \text{ e } 2]$

14) $x(x-3) = 8$

$[-1 \text{ e } 8]$

15) $x(x-1) = 20$

$[-4 \text{ e } 5]$

DISEQUAZIONI INTERE:

16. $3x - 5 < -2$

$x < 1$

17. $4x - 3 > 5x + 1$

$x < -4$

18. $x - 2 < 7x$

$x > -\frac{1}{3}$

19. $6x + 7 > \frac{1}{3}(9x - 3)$

$x > -\frac{2}{3}$

20. $2(x - 1) + 3(x - 2) \leq -7$

$x < \frac{1}{5}$

FRATTE:

21. $\frac{1}{x-1} > 0$

$x > 1$

22. $\frac{1-x}{2x} \geq 0$

$x < -\frac{1}{2} \vee x \geq 0$

23. $\frac{1}{x} < 0$

$x < 0$

24. $\frac{5}{x} \geq 25$

$0 < x \leq \frac{1}{5}$

25. $\frac{x}{x-2} \geq 5$

$2 < x \leq \frac{5}{2}$

1) $\begin{cases} 3x + 2y = 3 \\ 6x + 4y = -4 \end{cases}$

2) $\begin{cases} 2x - y = 0 \\ x + 3y = -1 \end{cases}$

3) $\begin{cases} 6x - 2y = 5 \\ -8x - 6y = -1 \end{cases}$

4) $\begin{cases} 4x - 2y = -1 \\ -2x + y = -2 \end{cases}$

5) $\begin{cases} x = 4y + 1 \\ 4x - 16y = 3 \end{cases}$

6) $\begin{cases} 3x - y = -1 \\ 2x + 3y = 8 \end{cases}$

7) $\begin{cases} 2x - 4y + y^2 = 4(y-3) + 16 \\ 2x - 3y = 8 \end{cases}$

8) $\begin{cases} 3x + 2y + 4 = 0 \\ x^2 - (x-1) - x^2 + y = x^2 + 2y + 3 \end{cases}$

9) $\begin{cases} 4x + 5y + 23 = 0 \\ 9(2-x) + 4 + 7z = -9 \end{cases}$

10) $\begin{cases} 2x - 3y = -1 \\ 4x + 7y = -15 \end{cases}$

SISTEMI