

1. Expresar en notación de intervalo y trazar la gráfica del intervalo:

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|----------------------|---------------------|------------------------|
| 1. $2 < x < 5$ | 6. $-1 < x < 2$ | 11. $-1 < x \leq 0$ |
| 2. $-1 < x \leq 3$ | 7. $-2 \geq x > -3$ | 12. $3 \geq x \geq -3$ |
| 3. $4 \geq x \geq 1$ | 8. $0 < x \leq 4$ | 13. $0 > x$ |
| 4. $x > -1$ | 9. $x < 1$ | 14. $-2 \leq x$ |
| 5. $x \leq 2$ | 10. $x \geq 3$ | 15. $2 > x \geq -1$ |

2. Resolver las siguientes inecuaciones, y expresar la solución en forma grafica y en notación de intervalo:

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| 1. $5x - 6 > 11$ | 17. $16 < 7 - 3x \leq 31$ |
| 2. $2 - 7x \leq 16$ | 18. $-1 \leq \frac{2}{3}a + 5 \leq 11$ |
| 3. $3x + 1 < 5x - 4$ | 19. $15 \leq 7 - \frac{2}{5}x \leq 21$ |
| 4. $4 - \frac{1}{2}x \geq -7 + \frac{1}{4}x$ | 20. $\frac{1}{3}x - 4 \leq \frac{1}{4}x - 6$ |
| 5. $-4 < 3x + 5 < 8$ | 21. $6 > 2x - 6 > 4$ |
| 6. $3 \geq \frac{7-x}{2} \geq 1$ | 22. $-2 \leq \frac{5-3x}{4} \leq \frac{1}{2}$ |
| 7. $0 < 2 - \frac{3}{4}x \leq 1$ | 23. $-3 < \frac{1}{2}x - 4 \leq 0$ |
| 8. $3 - m < 5(m - 3)$ | 24. $2x - \frac{5}{3} > \frac{x}{3} + 10$ |
| 9. $-2 - \frac{b}{4} \leq \frac{1+b}{3}$ | 25. $x - 5 < 2x - 6$ |
| 10. $-4 < 5t + 6 \leq 21$ | 26. $5x - 12 \geq 3x - 4$ |
| 11. $2(1-u) \geq 5u$ | 27. $x - 6 > 21 - 8x$ |
| 12. $\frac{y-3}{4} - 1 > \frac{y}{2}$ | 28. $3x - 14 \leq 7x - 2$ |
| 13. $2 \leq 3m - 7 < 14$ | 29. $2x - \frac{5}{3} > \frac{x}{3} + 10$ |
| 14. $\frac{q}{7} - 3 > \frac{q-4}{3} + 1$ | 30. $2x - 4 + \frac{x}{4} \leq \frac{5x}{2} + 2$ |
| 15. $\frac{p}{3} - \frac{p-2}{2} \leq \frac{p}{4} - 4$ | 31. $(x-1)^2 - 7 > (x-2)^2$ |
| 16. $-12 \leq \frac{3}{4}(2-x) \leq 24$ | |

$$31. (x+2)(x+1) + 26 < (x+4)(x+5)$$

$$32. 3(x-2) + 2x(x+3) \geq (2x-1)(x+4)$$

$$33. \frac{2x}{5} - \frac{1}{2}(x-3) \leq \frac{2x}{3} - \frac{3}{10}(x+2)$$

$$34. \frac{2}{3}(x+7) - \frac{x}{4} > \frac{1}{2}(3-x) + \frac{x}{6}$$

Inecuaciones Cuadráticas

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| 1. $x^2 - x - 12 < 0$ | 24. $\frac{x-4}{x^2+2x} \leq 0$ |
| 2. $x^2 - 2x - 8 < 0$ | 25. $\frac{x+4}{1-x} \leq 0$ |
| 3. $x^2 - x - 12 \geq 0$ | 26. $\frac{3-x}{x+5} \leq 0$ |
| 4. $x^2 - 2x - 8 \geq 0$ | 27. $\frac{1}{x} < 4$ |
| 5. $x^2 < 10 - 3x$ | 28. $\frac{5}{x} > 3$ |
| 6. $x^2 + x < 12$ | 29. $\frac{2x}{x+3} \geq 1$ |
| 7. $x^2 + 21 > 10x$ | 30. $\frac{2}{x-3} \leq -2$ |
| 8. $x^2 + 7x + 10 > 0$ | 31. $\frac{3x+1}{x+4} \leq 1$ |
| 9. $x^2 \leq 8x$ | 32. $\frac{5x-8}{x-5} \geq 2$ |
| 10. $x^2 + 6x \geq 0$ | 33. $\frac{2}{x+1} \geq \frac{1}{x-2}$ |
| 11. $x^2 + 5x \leq 0$ | 34. $\frac{3}{x-3} \leq \frac{2}{x+2}$ |
| 12. $x^2 \leq 4x$ | 35. $x^2 + 1 < -2x$ |
| 13. $x^2 > 4$ | 36. $x^2 + 25 < 10x$ |
| 14. $x^2 \leq 9$ | 37. $x^3 + 5x > 4x^2 + 20$ |
| 15. $x^2 + 9 \geq 6x$ | 38. $x^3 + 3x^2 + x + 3 < 0$ |
| 16. $x^2 + 4 \geq 4x$ | 39. $4x^4 + 4 \leq 17x^2$ |
| 17. $x^3 + 5 \geq 5x^2 + x$ | 40. $x^4 + 36 \geq 13x^2$ |
| 18. $x^3 + x^2 < 9x + 9$ | |
| 19. $x^3 + 75 < 3x^2 + 25x$ | |
| 20. $x^3 + 4x^2 \geq 4x + 16$ | |
| 21. $\frac{x-2}{x+4} \leq 0$ | |
| 22. $\frac{x+3}{x-1} \geq 0$ | |
| 23. $\frac{x^2+5x}{x-3} \geq 0$ | |