

Algebra I Homework #12

- 1) Graph and label each of the following points all on one graph:
A. (5, -4) B. (-3, 3) C. (0, -2) D. (4,2) E. (-5,-3)
- 2) Graph the inequality $3x - 2y < 4$
- 3) Find the equation of the line that goes through the points (-4,-1) and (-7,-5).
- 4) Solve $-3(2x - 5) - (-2 - 1)^2 - 4x < -6^0 + 12 \div 2(-1 - 1) - (4x - 3)$ and graph the answers on a number line.
- 5) Solve $\frac{-2}{3}x - \frac{1}{2} \geq \frac{1}{3}$ and graph the answers on a number line.
- 6) Is $5x^2 - 3x + 4$ a polynomial? If it is, state whether it is a monomial, binomial, or trinomial.
- 7) Simplify: $-2(4x^3 - 6x + 5) - (7x - 3 + 8x^3)$
- 8) Simplify: $-3x^2y^4a(2x^3a^2y)^2$
- 9) Is $\frac{5}{x^2}$ a polynomial? If it is, state whether it is a monomial, binomial, or trinomial.
- 10) Simplify: $-(2x^4 - 3x + 8x^2) - 3(4x^2 - 2x + x^3 - 5)$
- 11) Simplify: $\frac{(2x^3y^2a)^2(-3xy^3a^2)^3}{6(2x^2ya^2)^3(3xy^2a^4)^2}$
- 12) Is $7x - 2 - 10x$ a polynomial? If it is, state whether it is a monomial, binomial, or trinomial.
- 13) Simplify: $(8x^2 + 4x - 1) - (3x - 9 - 2x^2)$
- 14) Simplify: $4(-xy^3a^2)^3(-3x^2ay^3)^0$
- 15) Is $4x + \sqrt{3x}$ a polynomial? If it is, state whether it is a monomial, binomial, or trinomial.
- 16) Simplify: $4(7 - x^3 - 3x^2) - 2(5x - 6 + 4x^3)$
- 17) Simplify: $\frac{-x^3y^2a^2(-2x^2ay^2)^3}{-8(-x^0y^3a)^3(-2x^2y)^2}$
- 18) Is $6x - 9 - 6x$ a polynomial? If it is, state whether it is a monomial, binomial, or trinomial.
- 19) Simplify: $-(-4x^5 - 6x^4 + 7 - 5x) - (3x^4 - 6x + 2x^5)$
- 20) Simplify: $-(-7x^3y)^0(-3x^2a^3y^2)^3(2x^2y^0a^2)^2$

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