

## Algebra I Homework #3

- 1) Simplify:  $-(-1-2)^2 - 12 \div 4(-2-1) - [-48 \div (8(6))]^3 - 9^0$
- 2) Simplify:  $\frac{-3^2 - (-1-1)^0 - 24 \div 6(-5+1)}{-3^4 \div 27(-2-1) - 1^9 - (-1-3)^2}$
- 3) Turn  $2\frac{7}{8}\%$  into a fraction.
- 4) What are the natural numbers less than or equal to 9?
- 5) Simplify:  $\frac{72}{57} \left( \frac{7}{12} - \frac{1}{18} \right) - \frac{5}{8} + \frac{2^0}{9}$
- 6) Simplify:  $\frac{-a - x^3}{-2d - c^2}$  if  $a = -5$ ,  $x = -2$ ,  $d = -1$ , and  $c = -3$
- 7) Simplify:  $4x^2 - 7 + 3x^3 + 5x - 3x^2 - 1$
- 8) Simplify:  $-3a - 4(2a - 1) - 5^0 - (-1-1)^3 + 4a$
- 9) Simplify:  $\frac{3d - x^0}{-c - a^3}$  if  $a = -1$ ,  $c = -4$ ,  $d = -2$ , and  $x = -6$
- 10) Simplify:  $-5(2x - 3) - 20 \div 5(-1-3) - 3x$
- 11) Simplify:  $-3(2y - 7) - (-1-1)^4 - 2(2x^2y^3a)^0 + 5y$
- 12) Simplify:  $\frac{-y^3 - 2a}{-c - x^2}$  if  $y = -1$ ,  $a = -4$ ,  $c = -5$ , and  $x = -3$
- 13) Simplify:  $-12 \div 6(-1-1) - (3x - 4) - 5x - 4^2$
- 14) Simplify:  $-(2x^3 - 5x + 3 - x^2) - 3(-7 + 4x^2 - 6x) - 4$
- 15) Simplify:  $\frac{-x - y^2}{-2d^3 - a^0}$  if  $x = -4$ ,  $y = -1$ ,  $d = -3$ , and  $a = -7$
- 16) Simplify:  $-3^0 - 2(3x - 5) - (-4 + 1)^2 - (4x - 3)$
- 17) Simplify:  $-3(2x - 5) - (-4x - 3) - 2(x^2 - 5x - 1)$
- 18) Simplify:  $\frac{-2k^0 + a^2}{-2x - y^3}$  if  $k = -4$ ,  $a = -3$ ,  $x = -5$ , and  $y = -2$
- 19) Simplify:  $-5 + 3x^3 - 2x + 4x^2 - 7 - 5x - 6x^3$
- 20) Simplify:  $-(-2x + 1)^0 - 3(5x - 2) - 6 \div 3(-1-1) - 2^4$

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