

Algebra II Homework #2

- 1) Simplify: $-(-1-1)^4 - 16 \div 4(-3-1) - [-81 \div (9(9))]^3 - 7^0$
- 2) Simplify: $-|-6+2| - |-3-1| - 5|-2+1|$
- 3) Graph $\{x \mid x < \frac{28}{5}\}$ on a number line.
- 4) $5.\overline{736}$ belongs to which number groups?
- 5) Simplify: $\frac{48}{54}(\frac{5}{12} - \frac{3}{18}) - \frac{7}{8} + \frac{9^0}{24}$
- 6) Simplify: $\frac{-a^2 - x^3}{-2d - c}$ if $a = -4$, $x = -3$, $d = -2$, and $c = -1$
- 7) Translate and simplify: A number decreased by the difference between the number and seven
- 8) Simplify: $-7a - 3(4a - 2) - 8^0 - (-2 - 1)^3 + 9a$
- 9) Simplify: $\frac{2d - x^2}{-3c^0 - a^3}$ if $a = -3$, $c = -2$, $d = -4$, and $x = -1$
- 10) Simplify: $-6(3x - 4) - 20 \div 10(-1 - 1) - 7x - 4^2$
- 11) Translate and simplify: The product of six and nine more than the quotient of a number and four
- 12) Simplify: $\frac{-y^2 - 3a}{-c - x^3}$ if $y = -3$, $a = -5$, $c = -4$, and $x = -2$
- 13) Translate and simplify: Six less than double the difference between four times a number and three
- 14) Simplify: $-2(3x^3 - 7x + 2 - x^2) - (-9 + 5x^2 - 2x) - 6^0$
- 15) Simplify: $\frac{-x - y^3}{-4d^0 - a^2}$ if $x = -6$, $y = -3$, $d = -4$, and $a = -1$
- 16) Simplify: $-9^0 - 3(5x - 1) - (-3 + 1)^3 - (7x - 6)$
- 17) Simplify: $-4(3x - 1) - (-7x - 2) - 3(x^2 - 4x - 8) - (-1 - 2)^3$
- 18) Simplify: $\frac{-3k^2 + a^3}{-4x - y^0}$ if $k = -3$, $a = -2$, $x = -4$, and $y = -5$
- 19) Translate and simplify: One less than triple the difference between ten times a number and six
- 20) Simplify: $-(-7x + 5)^0 - 6(2x - 1) - 9 \div 3(-1 - 2) - 2^4$

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