

Math 1300 Final Exam Review

Example 1: Evaluate.

$$-10 - 24 + 6$$

$$72 \div 6 \cdot 4$$

$$4 - 3(12 \div 6 \cdot 2)$$

Example 2 Find the least common multiple (LCM) of:

18, 20

16, 36

Example 3 Simplify.

$$\left(\frac{4x^{-6}y^{14}x^2}{2x^{-3}y^4} \right)^2$$

$$\sqrt{96}$$

Example 4: Let $-4x + 7y = 56$. Find the y-intercept.

Example 5: Let $3y = -7x - 10$. Find the slope and the y-intercept

Example 6: Find the slope of the line that passes through $(-8, 4)$ and $(-3, -6)$.

Example 7: Find the equation of the line that passes through $(-2, 8)$ and has slope 4.

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Example 8: Complete the table given. Then sketch the graph of the line $y = 4x - 16$ by plotting the points in the completed table

x	y
-2	__
__	0
1	__

Example 9: Find the coordinates of the y-intercept for: $y = -4x^2 - 8x + 2$.

Example 10: Let $f(x) = -3x^2 + 10$. Find

$$f(-2).$$

$$f(3)$$

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Example 11: Simplify.

$$(4x^2 - 2x + 9) - (5x^2 - 7x - 1)$$

$$(x - 5)(x + 7)$$

$$(x - 4)(x + 4)$$

Example 12: Factor.

$$16x^2 - 144$$

$$x^2 + 13x + 36$$

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$$x^2 + 2x - 48$$

$$x^3 - 9x^2 + 4x - 36$$

Example 13: Solve for x .

$$x^2 - 9 = 0$$

$$x^2 - 5x - 84 = 0$$

Example 14: Find the domain of $f(x) = \frac{x+5}{x-7}$