Name:_____Date:_____Period:_____

Integrated Math II Final Review Handout

1) The equation of a parabola is $f(x) = x^2 - 4x - 5$. The axis of symmetry is $x = 2$. Determine the vertex of the parabola. Show your work.

2) Write the function in factored form. Then determine the x-intercepts.

$h(x) = 4x^2 + 12x + 8$

factored form: _____

x-intercepts: _____

3) For each function, determine the characteristics indicated.

$f(x) = -3(x + 2)(x - 4)$

parabola opens: _____

x-intercepts: _____

4) For each function, determine the characteristics indicated.

$f(x) = 5(x - 3)^2 + 4$

parabola opens: _____

vertex: _____

5) Simplify the expression by determining the sum or difference. Show your work.

$(3x^2 - 2x + 14) - (6x^2 + 3x - 9)$

6) Factor each expression.

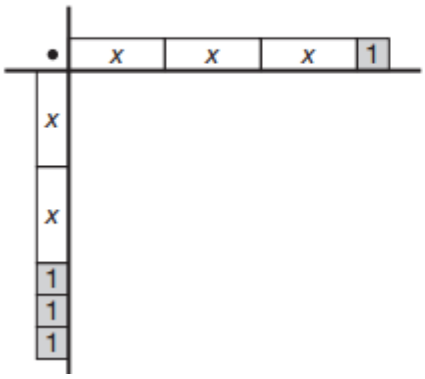
$x^2 - 36$

7) Determine the approximate solution to the equation.

$(s - 6)^2 = 75$

8) Determine the roots of the equation $x^2 + 8x - 20 = 0$ by completing the square.

9) Write the set of binomials that the area model represents. Then determine the product of the two binomials that are modeled.



10) Complete the multiplication table to determine each product.

$6u + 5$ and $3u - 4$

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11) Write the factored form for each trinomial.

$2x^2 - 9x + 9 =$ _____

$2x^2 - 3x - 9 =$ _____

$2x^2 + 3x - 9 =$ _____

$2x^2 + 9x + 9 =$ _____