Adv.Alg. II honors

Name Key

Date _____

Using Function Notation & Operations on Functions

I. Given: $f(2) = 5$, identify the ordered pair: $(2, 5)$

II. If $f(x) = 2x + 5$ and $g(x) = 3x - 8$, find each of the following:

1. $f(2) = 9$ $g(2) = -2$
2. $f(2) \cdot g(2) = -18$
3. $f(x) \cdot g(x) = 6x^2 - x - 40$
4. $f(n) = 2n + 5$
5. $f(g(4)) = 13$
6. $f(g(x)) = 6x - 11$
7. $g(f(x)) = 6x + 7$
8. $g(5x+1) = 15x - 5$

III. Given $p(x) = 3x^2$ and $q(x) = 4x+1$,

9. find $\frac{p(2)}{q(2)} = \frac{4}{3}$

10. find $p(q(x))$ $= 3(4x+1)^2$

$= 3(16x^2 + 8x + 1)$

$= 48x^2 + 24x + 3$