**Algebra 2 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period: \_\_\_\_\_\_\_**

**Final Review WS #5**

**SHOW WORK – Box Answers**

**1.** Find the slope: $\left(-2,-4\right)and (6,-8)$

**3**. Find the inverse: $f\left(x\right)= \frac{3x-4}{2}$

5. What is the value of $i^{7}?$

7. Simplify: $\frac{2+3i}{1-i}$

9. Solve: $logx=-2$

11. How many ways are there to select 4 people from a group of 6? (Do not use a calculator)

13. Shelia invested $1500 at 4% annual interest, compounded weekly. How much money will she have after 6 years?

**2.** Find the equation of the line perpendicular to $ 3x-4y= -8$ and goes through (-3,1).

4. Find the quotient of: $(x^{4}-16) ÷(x-2)$

6. Simplify: $\left(2-5i\right)-(3-2i)$

8. What is the point that represents the minimum value of $y=3x^{2}+12x-4$

Graph the equation.

10. How many ways are there to place first, second, and third in a six person race? (Do not use a calculator)

12. Using a calculator: Find the value of $log\_{3}7$

14. Write in simplest form: $(9a^{-4})^{-1/2}$