

Name: \_\_\_\_\_

Block: \_\_\_\_\_

**518 Complex Number Graded Assignment**

1.  $i^{2013}$

1. \_\_\_\_\_

2.  $(2i^2)^4$

2. \_\_\_\_\_

3.  $\sqrt{-81}$

3. \_\_\_\_\_

4.  $(\sqrt{-3})(\sqrt{27})$

4. \_\_\_\_\_

5.  $2i(i^3 + i^5 - i)$

5. \_\_\_\_\_

6.  $(2 + 4i) - (5 + 3i)$

6. \_\_\_\_\_

7.  $(3 - 4i)(5 + 2i)$

7. \_\_\_\_\_

8.  $(3 - 2i)(3 + 2i)$

8. \_\_\_\_\_

9. Solve for all solutions:  $x^2 + 52 = 3$

9. \_\_\_\_\_

10. Solve for all solutions:  $x^2 - 6x = -10$

10. \_\_\_\_\_

11. Find the magnitude for  $12 - 5i$ .

11. \_\_\_\_\_

12. Find  $|-3 + 5i|$

12. \_\_\_\_\_

13. a. Plot  $M = 4 + 2i$  and  $H = -5 - 3i$ .

b. Which has the greater magnitude and what is it?

