**Chapter 13 Review** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Plot the polar coordinates. Then give 2 other names for the same point.

1. 2.

Convert the polar equation to Cartesian form. Then identify what type of graph it is.

3. 4.

Evaluate and simplify the expressions.

5. (4 – 3i)(2 + 5i) 6. (3 – 4i) – (6 + 2i)

7. 8.

9. 10.

11. 12.

13. 14.

15. Find the points of intersection of and

Write the complex number in polar form.

16. 24 – 7i 17. -6 – i

Write the polar form as a complex number in a + b*i* form.

18. 19.

20. A person hunting shoots their gun with a velocity of 300 m/sec east and 200 m/sec north. At time t = 0 seconds, the person is at the point (3, 20).

a) Write parametric equations for the bullet’s path.

b) If the bullet continues on this path and the target is at 903 m east, how many seconds will it take to reach the target?

c) How many meters north is the target?