Pre-Calculus 2 Assignment 212 Tuesday, February 24, 2015 Hour Name

1. Given ΔBMQ with b = 45, m = 60, Q = 54°. Solve the triangle.

2. Given ΔABN with a = 88, b = 70, B = 42°. Solve the triangle.

3. Given ΔPLY with p = 47, l = 51, y = 63. Find the area of the triangle.

4. Given $\vec{u} = < 5, 7 >$, $\vec{v} = < -2, 3 >$. Find the projection of $\vec{u}$ *onto* $\vec{v}$.

5. Convert $< 22, 41 >$ from Rectangular to Polar Form.

6. Convert $< 42, 71° >$ from Polar to Rectangular Form.

7. $< 41, 17° > + < 72, 58° > =$

8. $(2 + i)^{12} =$

9. $\dfrac{3+3i}{5-3i} =$

10. $< 4, 22° > \bullet < 3, 12° > =$

11. Solve $x^3 + 4 = 3i$

12. A force, $\vec{F} = < 15, 30° >$ moves an object from P(1, 4) to Q(5, 7). Find the work done.

13. Find the angle between the vectors $< 4, 6 >$ and $< -3, 5 >$.

14. How much force is required to prevent a 3820-pound vehicle from rolling down an incline of 17° ?

15. Given ΔABC with a = 123, b = 180, c = 99. Find B.