Unit 4 Need some extra review problems??

1. Change $(3, \sqrt{3})$ to polar form.

2. Change $[5, \frac{3π}{4}]$ to rectangular form.

3. Change $r=3cosθ$ to rectangular form

4. Change $5x-2y=7$ to polar form.

5. Rename $[2, \frac{π}{4}]$ so that

 a) $r<0, θ<0$

 b) $r<0, θ>0$

6. $[2(\cos(\frac{π}{4}+isin \frac{π}{4})])^{3}$

7. Find the fourth roots of 16*i*

8. Write the component form of $\vec{AB}$ given A(-2, 3) and B(5, 4)

9. Find the angle between < -3, -4 > and < 7, -2 >

10. If $r=4, θ=225°$, find the horizontal and vertical components.

11. A plane is flying on a bearing of 200$° $at a speed of 530 mph. The wind is blowing at a bearing of $120°$ at 35 mph, find the ground speed and direction of the plane.

12. If $u= <-7, 5> $, find a unit vector in the direction of *u*.

13. $Given, a=2-3i, b=5+4i, c=8-10i$, find

 a) a+b

 b) ab

 c) $\overbar{c}$

 d) $\frac{c}{b}$

 e) $\left|a\right|$

14. Identify the polar equations

 a) $r=2θ+3$

 b) $r=5sin4θ$

 c) $r=2+3cosθ$

15. Eliminate the parameter $x=5\sec(t, y=2\tan(t))$