Analysis H – Hahn / Hlasek / Tantod _____ loves Analysis, for richler or polar
Unit 3 Quiz 1 – Polar graphing _____ Period: _____
NO CALCULATORS 24 points

1. Convert the rectangular points to polar coordinates with positive r and $0 \leq \theta < 2\pi$. [2 pts each]

   a) $(8\sqrt{2},\ -8\sqrt{2})$ b) $(-7\sqrt{3},\ 0)$

2. Convert the polar points to rectangular coordinates. [2 pts each]

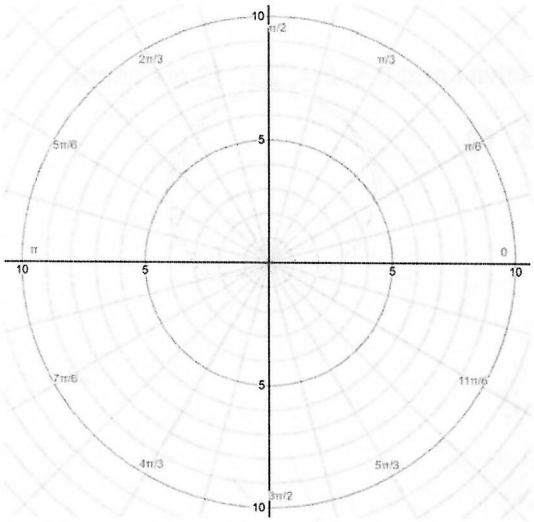
   a) $\left(9,\ \frac{7\pi}{6}\right)$ b) $\left(-8,\ -\frac{27\pi}{2}\right)$

3. Convert the polar equation to rectangular. Give your answers in the form of y as a function of x. [2 pts each]

   a) $13 = cot\,\theta$ b) $r = 7$

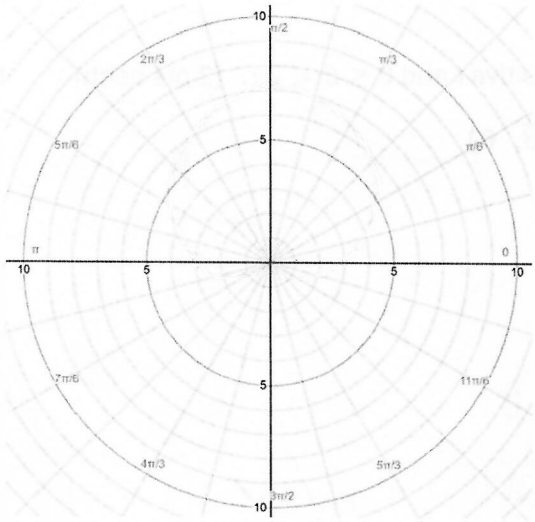
4. Graph each equation. Then classify each graph according to its most specific name. [2 for graph, 1 for name]

a) $r = 3 + 4\sin\theta$



Name: _____

b) $r = 6\cos 4\theta$



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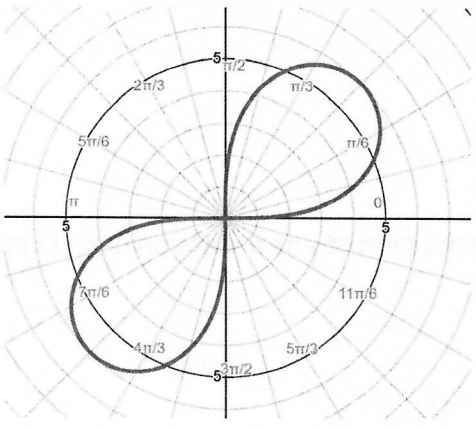
5. Write the equation of each graph. Then classify each graph according to its most specific name. [2 for equation, 1 for name]

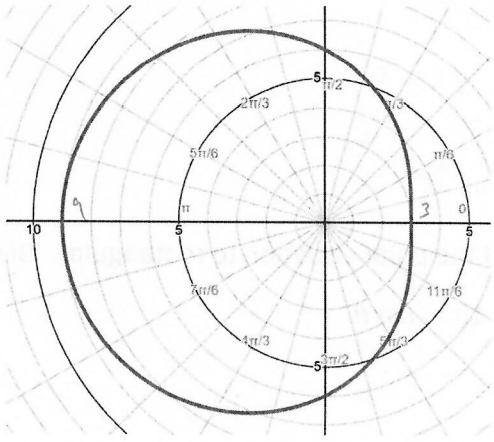
a)



Equation: _____

Name: _____

b)



Equation: _____

Name: _____

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