## Pre-Cal CW 9.5-9.6 Polar Coordinates and Polar Equations (Can Write on)

1. Write the 4 polar representations for the given point in the domain $-2 \pi<\theta<2 \pi$.

2. Convert the following to its polar form. (2, $-2 \sqrt{3}$ )
3. Convert the following to its rectangular form. $\left(-2,-\frac{11 \pi}{6}\right)$
4. Convert the following equation to its polar form for $r . \quad x^{2}+(y-1)^{2}=1$
5. Convert the following polar equation to its rectangular form. (Write you answer in the standard form of a circle) $\quad r=-4 \cos \theta+6 \sin \theta$

Use a table of values to graph each. Use as many points as you find necessary.
6. $r=-4$

7. $r=-2 \sin \theta$

8. $r=3-3 \cos \theta$


## Table of values for \#7 work

| $r$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\theta$ |  |  |  |  |  |  |  |  |  |  |  |  |

Table of values for \#8 work

| $r$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\theta$ |  |  |  |  |  |  |  |  |  |  |  |  |

