Trigonometry	Name:
Study Guide 22	Class:
Due Date:	Score:

No Work ⇔ No Points

Use Pencil Only ⇔ Be Neat & Organized

1. **(5 points)** Plot the polar points $(2, 0), (-2, \pi/4), (3, 3\pi/4), (-3, 5\pi/4), (4, 7\pi/4), (2, \pi)$ below. Clearly label each point.
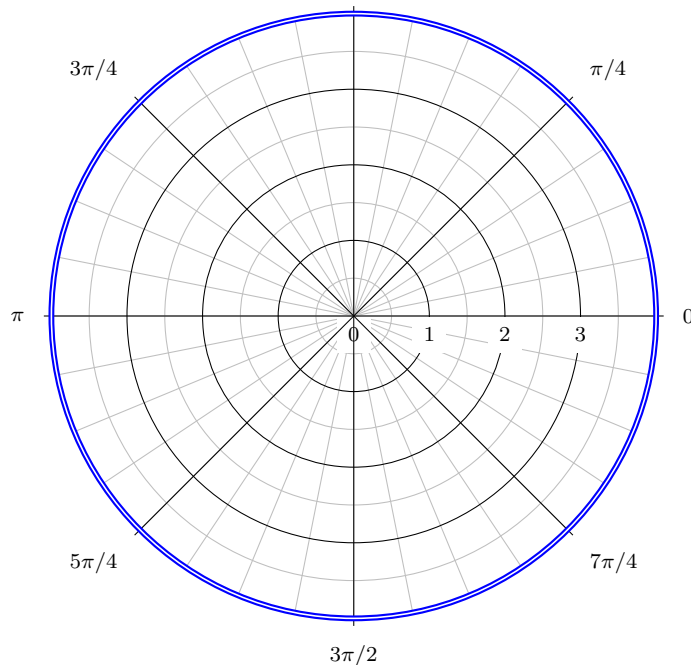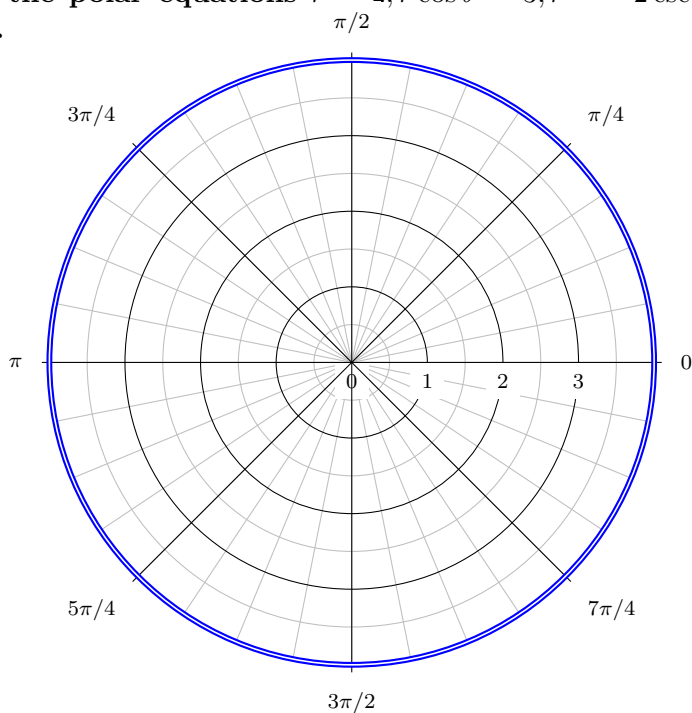

2. **(3 points)** Convert the polar point $(-6, \pi/3)$ to a rectangular coordinate point.

2. _____

3. **(3 points)** Convert the polar equation $r = 4$ to a rectangular equation.

3. _____

4. (6 points) Draw the polar equations $r = 2, r\cos\theta = 3, r = -2\csc\theta$ **below. Clearly label each graph.**

5. (3 points) Convert the rectangular point $(-6, 2\sqrt{3},)$ **to a polar coordinate point.**
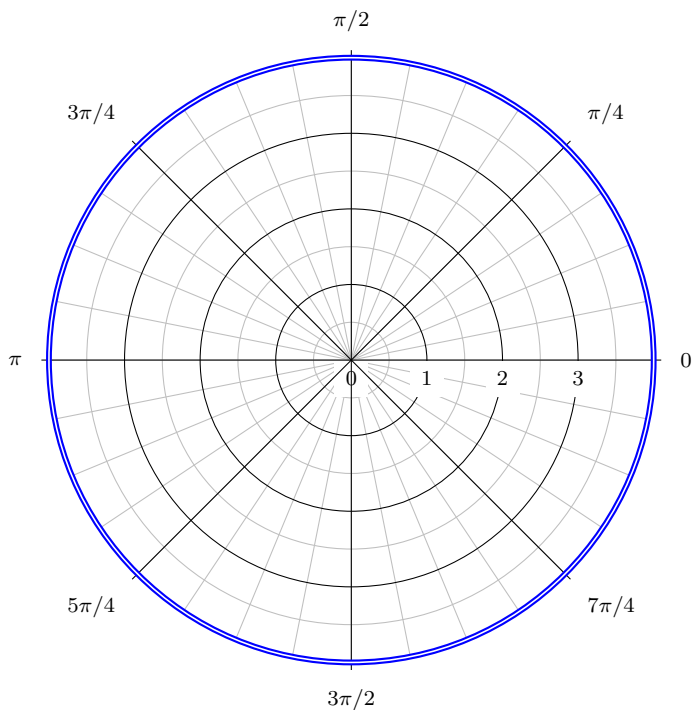
5. _____

6. (3 points) Convert the rectangular equation $2x - 3y = 6$ **to a polar equation.**
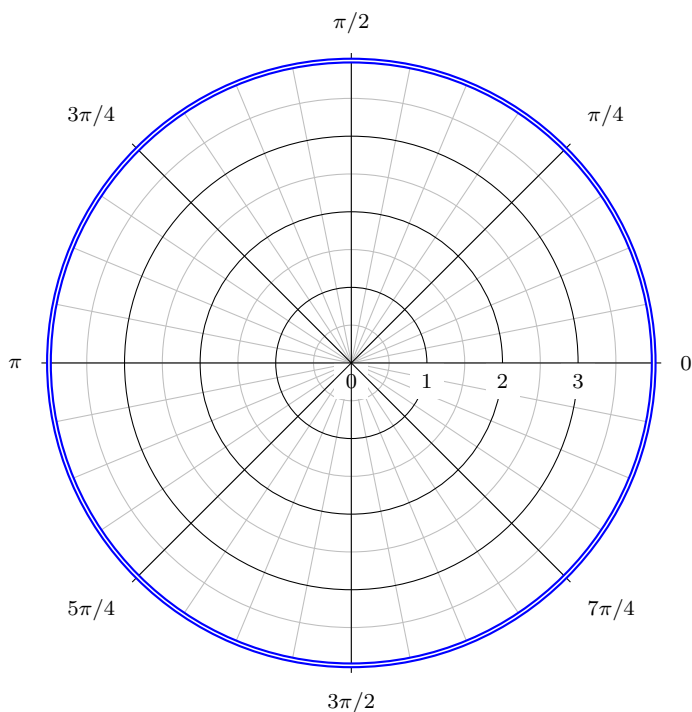
6. _____

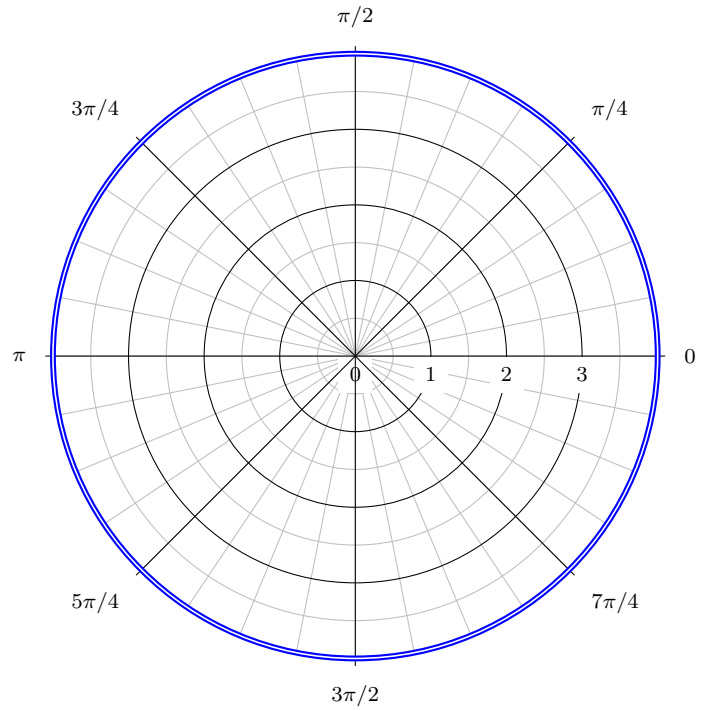**7. (3 points) Convert the polar equation** $r = 6\sin\theta$ **to a rectangular equation.**

7. _____

8. (6 points) Draw $r = 2 - \sin\theta$. **Show your work in details and clearly label all important points.**

9. (6 points) Draw $r = 1 + 2\cos\theta$. **Show your work in details and clearly label each important points.**

10. (6 points) Draw $r = 3\sin 2\theta$. **Show your work in details and clearly label all important points.**

11. (6 points) Draw $r = 2\cos 3\theta$. **Show your work in details and clearly label each important points.**