*Turn in your GHW with work stapled to the back.*
*AND leave out your hw that's due today for me to check.*
*Monday: Ch 9 Quiz*

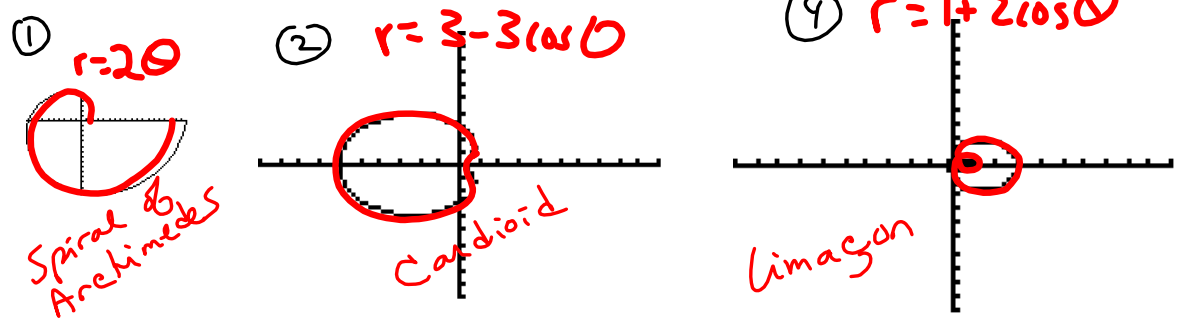
# QUIZ

Mar 5-9:36 PM

1, 2, 4 w/ tables & $\frac{\pi}{6}$

Pg 639

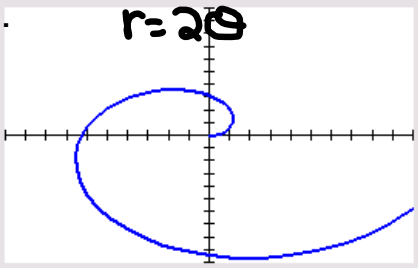
79) *d* 80) i 81) g 82) c 83) j 84) f




Feb 24-2:05 PM

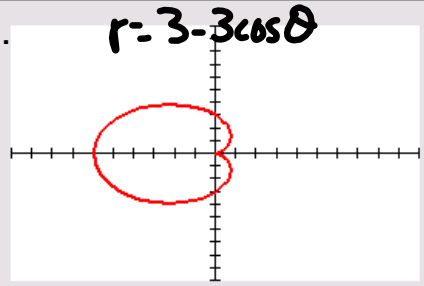
NORMAL FLOAT AUTO REAL RADIAN MP

1. $r=2\theta$



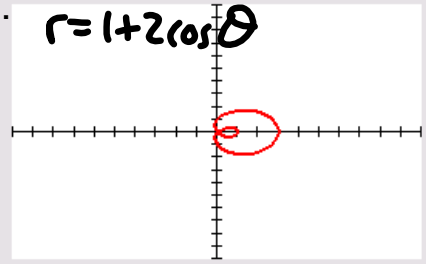
NORMAL FLOAT AUTO REAL RADIAN MP

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



NORMAL FLOAT AUTO REAL RADIAN MP

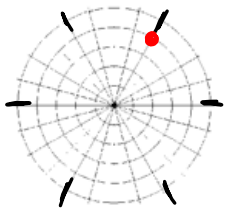
3. $r=1+2\cos\theta$



Mar 5-2:20 PM

Graph the point that has the given polar coordinates and name each one three different ways.

1. $\left(4,\frac{-5\pi}{3}\right)$

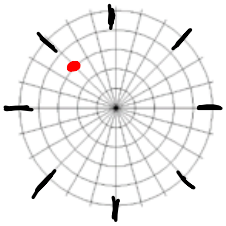


$(4,\pi/3)$

$(-4,-2\pi/3)$

$(-4,4\pi/3)$

2. $\left(-3,\frac{7\pi}{4}\right)$



$(-3,-\pi/4)$

$(3,5\pi/4)$

$(3,-5\pi/4)$

Mar 5-8:56 AM

Name the classical curve for each graph.

3. $r = 2 - 5\sin\theta$ limaçon

4. $r = 4\cos 5\theta$ rose w/ 5 petals

Convert the polar coordinates to rectangular coordinates. Exact value only. No decimals.

5. $(3, \pi)$ $x = r\cos\theta$, $y = r\sin\theta$; $x = 3\cos\pi$, $3(-1)$, $(-3, 0)$; $y = 3\sin\pi$, $3(0)$

6. $\left(-2, \frac{5\pi}{6}\right)$ $x = -2\cos\frac{5\pi}{6}$, $-2\left(-\frac{\sqrt{3}}{2}\right)$, $(\sqrt{3}, -1)$; $y = -2\sin\frac{5\pi}{6}$, $-2\left(\frac{1}{2}\right)$

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Convert the rectangular coordinates to polar coordinates. Exact value only. No decimals.

7. $(1, -\sqrt{3}) \rightarrow (r, \theta)$ $r^2 = 1^2 + (-\sqrt{3})^2$, $r^2 = 4$, $\tan\theta = \left|\frac{-\sqrt{3}}{1}\right|$, ref $\angle = \pi/3$, $\theta_4 = 5\pi/3$, $\left(2, \frac{5\pi}{3}\right)$

8. $(-1, 1)$ $r^2 = (-1)^2 + 1^2$, $r = \sqrt{2}$, $\tan^{-1}\left|\frac{-1}{1}\right|$, ref $\angle = \pi/4$, Q2 $\rightarrow \frac{3\pi}{4}$, $\left(\sqrt{2}, \frac{3\pi}{4}\right)$

9. Convert the equation from rectangular to polar: $y = -5$

$r\sin\theta = -5$, $r = \frac{-5}{\sin\theta}$, $r = -5\csc\theta$

10) Convert the equation from polar to rectangular: $r = -4\sec\theta$

$r = \frac{-4}{\cos\theta}$, $r\cos\theta = -4$, $x = -4$

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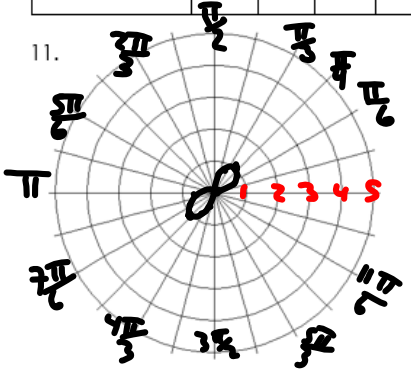
Graph the polar equation (make sure the calculator is in radian and polar mode). **Include Labels**!

11. $r^2 = \sin 2\theta$ Name classical curve lemniscate

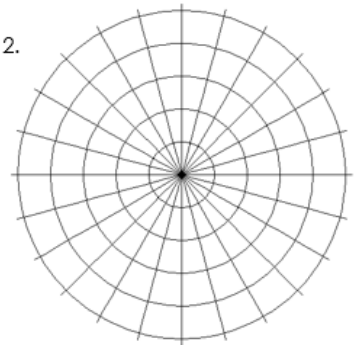
| $\theta$ | 0 | $\frac{\pi}{12}$ | $\frac{\pi}{6}$ | $\frac{\pi}{4}$ | $\frac{\pi}{3}$ | $\frac{5\pi}{12}$ | $\frac{\pi}{2}$ | $\frac{7\pi}{12}$ | $\frac{2\pi}{3}$ | $\frac{3\pi}{4}$ | $\frac{5\pi}{6}$ | $\frac{11\pi}{12}$ | $\pi$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $r = f(\theta)$<br>$r^2 = \sin 2\theta$ | 0 | .71 | .93 | 1 | .93 | .71 | 0 | – | – | – | – | – | 0 |

| $\theta$ | $\frac{13\pi}{12}$ | $\frac{7\pi}{6}$ | $\frac{5\pi}{4}$ | $\frac{4\pi}{3}$ | $\frac{17\pi}{12}$ | $\frac{3\pi}{2}$ | $\frac{19\pi}{12}$ | $\frac{5\pi}{3}$ | $\frac{7\pi}{4}$ | $\frac{11\pi}{6}$ | $\frac{23\pi}{12}$ | $2\pi$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $r = f(\theta)$<br>$r^2 = \sin 2\theta$ | .71 | .93 | 1 | .93 | .71 | 0 | - | - | - | - | - | - |

11.




12.



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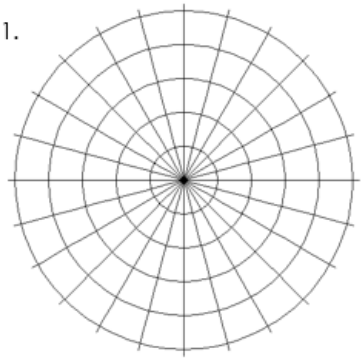
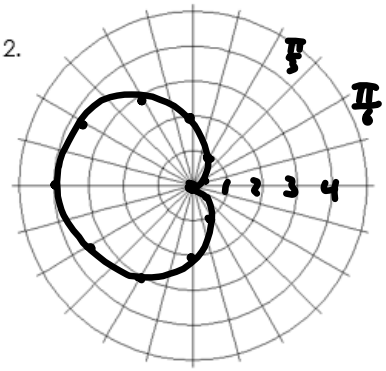
11.



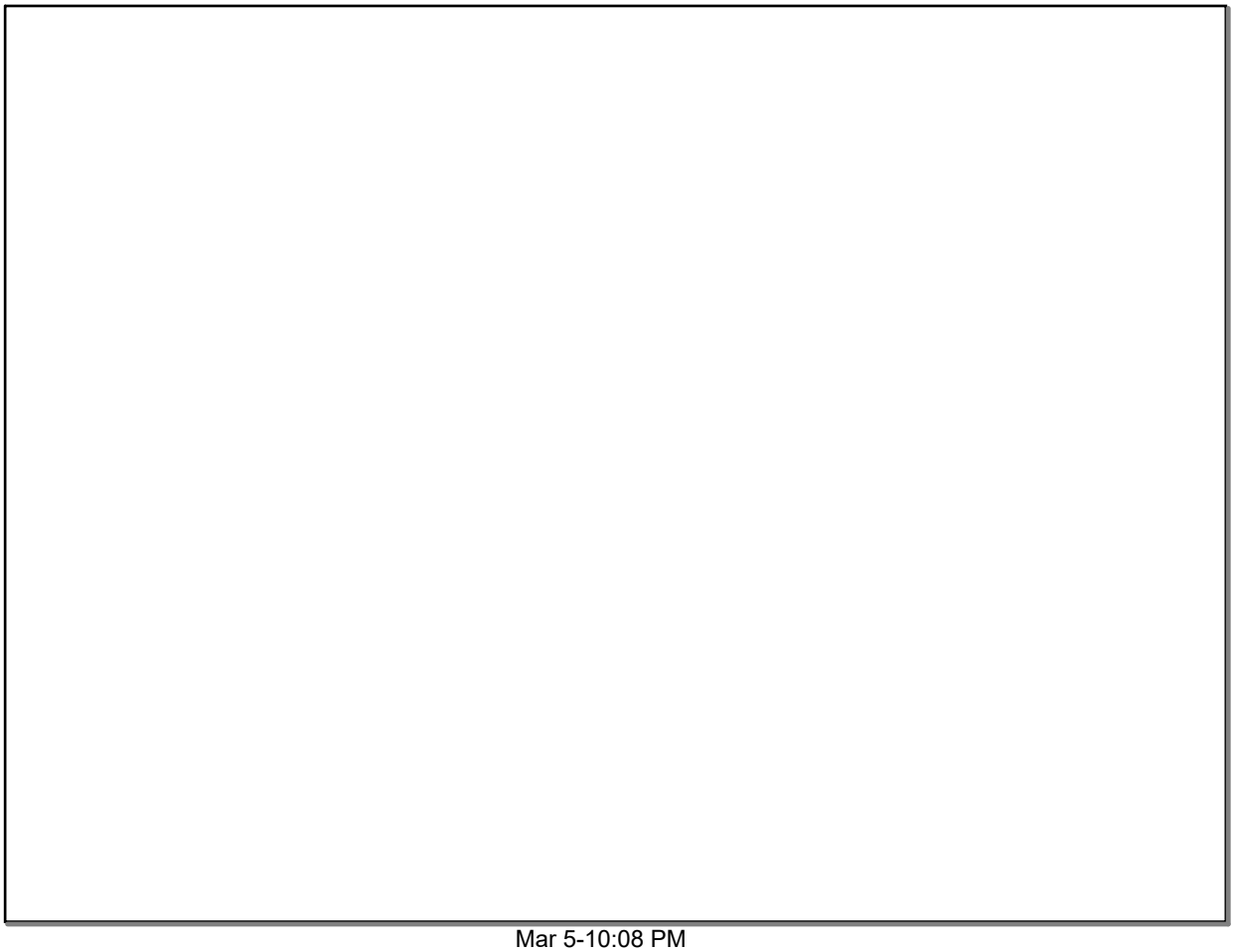
12.




| $\theta$ | 0 | $\frac{\pi}{6}$ | $\frac{\pi}{3}$ | $\frac{\pi}{2}$ | $\frac{2\pi}{3}$ | $\frac{5\pi}{6}$ | $\pi$ | $\frac{7\pi}{6}$ | $\frac{4\pi}{3}$ | $\frac{3\pi}{2}$ | $\frac{5\pi}{3}$ | $\frac{11\pi}{6}$ | $2\pi$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $r = f(\theta)$<br>$r = 2 - 2\cos\theta$ | 0 | .27 | 1 | 2 | 3 | 3.7 | 4 | 3.7 | 3 | 2 | 1 | .27 | 0 |

12. $r = 2 - 2\cos\theta$ Name classical curve cardiod

Mar 5-8:59 AM



Mar 5-10:08 PM