CHECK 8.3 EVEN ANSWERS:

78. $2\left(\cos\frac{\pi}{18}+i\sin\frac{\pi}{18}\right)$

82. $2^{\frac{1}{6}}\left(\cos\frac{\pi}{12}+i\sin\frac{\pi}{12}\right)$

84. $\left(\cos\frac{\pi}{10}+i\sin\frac{\pi}{10}\right)$

Do NOT graph #78, 82, 84

Leave answer in polar form since not easily evaluated with unit circle.

8.3 HINTS:

(78) $(4\sqrt{3}+4i)^{\frac{1}{3}=n} = [r(\cos\theta+i\sin\theta)]^{\frac{1}{3}}$

$= r^{\frac{1}{3}}(\cos\frac{1}{3}\theta+i\sin\frac{1}{3}\theta)$

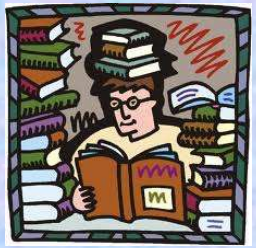
$r=\sqrt{\quad\quad}$

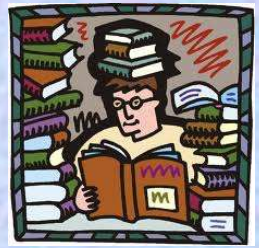
$\tan\theta =$

(84) $i^{\frac{1}{5}} \rightarrow (\underset{a}{0}+\underset{b}{1}i)^{\frac{1}{5}}$

$r=\sqrt{\quad\quad}$

$\tan\theta =$





Individual quiz Friday.

Ch.8 test will be part of final exam.

No calculator.

Memorize unit circle and radian values.

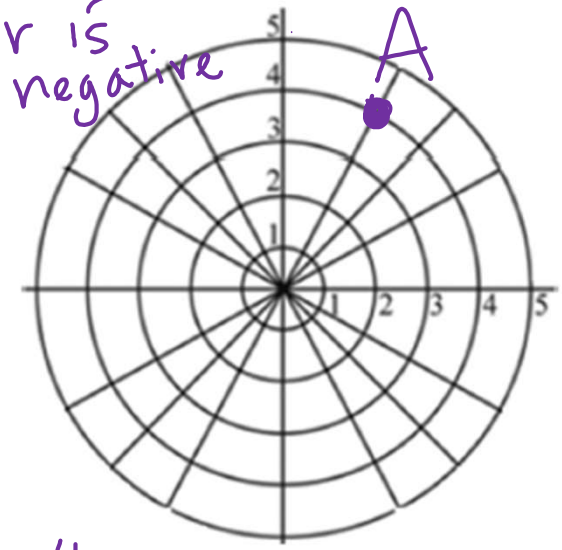
Memorize polar/rectangular formulas.

Check answers to review sheet#1:

Ch.8 Review#1—NO CALCULATOR!! **Name:** **Per:**

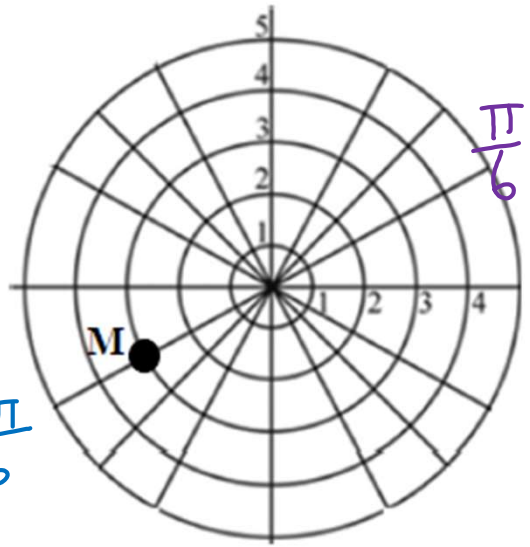
1. Graph the point $(-4, \frac{4\pi}{3})$ and label it A.

r is negative



$\frac{4\pi}{3}$

2. Fill in each blank to name four possible coordinates for point M. $-2\pi \le \theta \le 2\pi$



$\frac{\pi}{6}$

$\frac{7\pi}{6}$

a. $(3, \frac{7\pi}{6})$

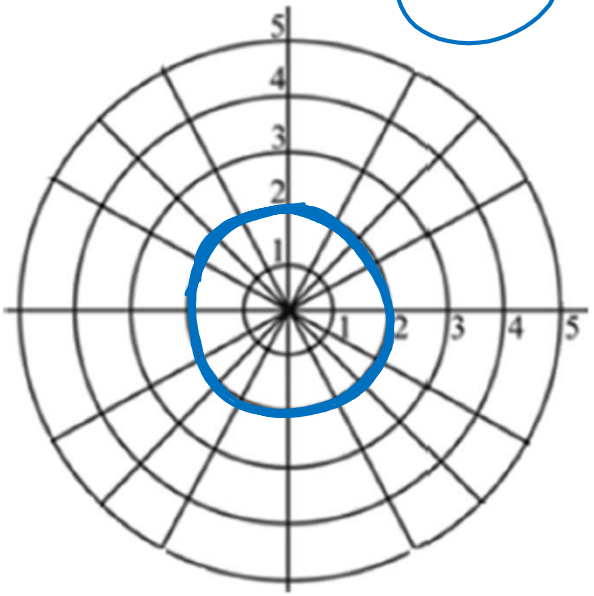
b. $(3, \frac{-5\pi}{6})$

c. $(-3, \frac{\pi}{6})$

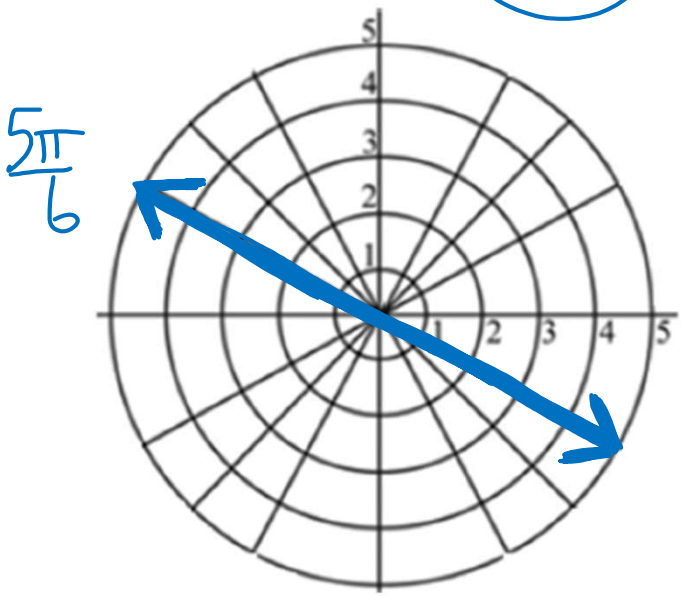
d. $(-3, \frac{-11\pi}{6})$

Check answers to review sheet#1:

3. Graph the polar equation $r = 2$



4. Graph the polar equation $\theta = \frac{5\pi}{6}$



CHECK ANSWERS #2, 6-13

-1 0 1

$-\frac{\sqrt{3}}{2}$ $\frac{\sqrt{2}}{2}$

$-\frac{11\pi}{6}$ $-\frac{5\pi}{6}$ π

$\frac{\pi}{6}$ $\frac{\pi}{6}$ $\frac{7\pi}{6}$

$\frac{3\pi}{4}$ $\frac{5\pi}{4}$ $\frac{5\pi}{3}$