Ch.8 Honors Trig/Precalc **NAME:** **PER:**

8.1 #5-10, 12,14, 17-22, 25-28 AND unit circle, complex numbers#1-5

Warm-up: M = (,)

A = (,)

T = (,)

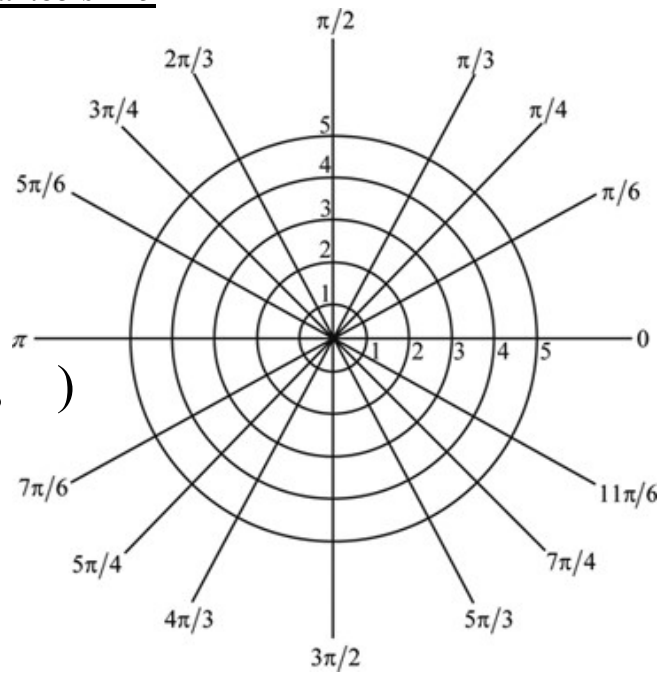
H = (,)

F = (,) (,) (,) (,)

F is similar to → #12 and #14

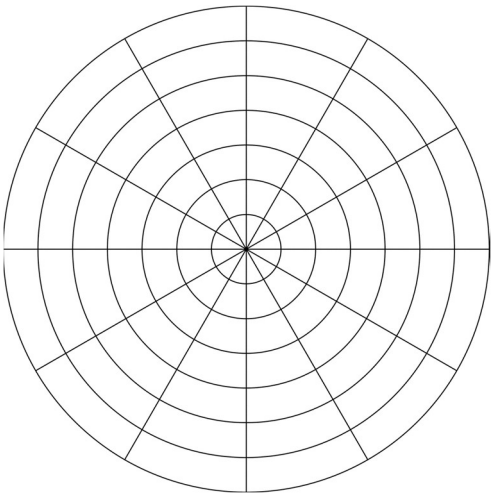
U = (,)

N = (,)

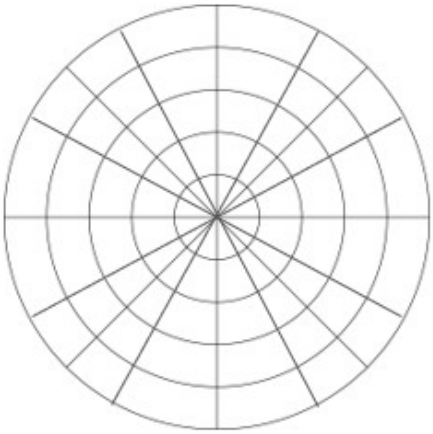


8.1 #5-10, 12,14

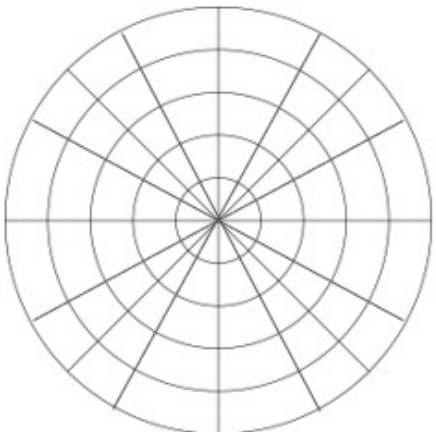
#5-8 graph, label coordinates next to each point



#9-10 graph, label coordinates next to each point



#12 plot point, label given coordinates, then list **three** other possible coordinates for the same point where $-2\pi \le \theta \le 2\pi$



(,)

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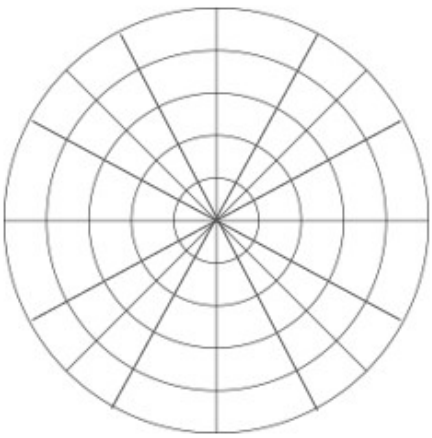
(,)

#14 plot point, label given coordinates, then list **three** other possible coordinates for the same point where $-2\pi \le \theta \le 2\pi$



(,)

(,)

(,)

over →

8.1 #17-22: write given coordinates, then identify point

CHECK EVEN BOOK ANSWERS:
(#12,14,18,20,22,26,28)

$\left(2,\frac{2\pi}{3}\right)$ $\left(-2,\frac{5\pi}{3}\right)$ $\left(3,\frac{3\pi}{2}\right)$ $\left(-\sqrt{3},1\right)$

$\left(2,-\frac{4\pi}{3}\right)$ $\left(2,-\frac{5\pi}{4}\right)$ $\left(-2,-\frac{\pi}{4}\right)$ $\left(-2,\frac{7\pi}{4}\right)$

P Q R

8.1 #25-28 show all steps on a separate sheet of paper!

reminder: $x = r\cos\theta$, $y = r\sin\theta$, $r^2 = x^2 + y^2$, $\tan\theta = \frac{y}{x}$

no calculator, refer to unit circle to solve

Review of Unit Circle and Complex Numbers (see notes 1.6)

CHECK ANSWERS#1, 3-5

I I II IV $\frac{\sqrt{3}}{3}$ $-\frac{\sqrt{3}}{2}$

$\frac{y}{x}$ $\frac{x}{y}$ $\frac{1}{x}$ $\frac{1}{y}$ x y

$\frac{1}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{4}$ $\frac{7\pi}{4}$ $\sqrt{3}$

-15 + 8i $-5 + i$ $-\frac{10}{17}+\frac{11}{17}i$

$\frac{4}{5}-\frac{3}{5}i$ 2 – 29i 9 – 7i

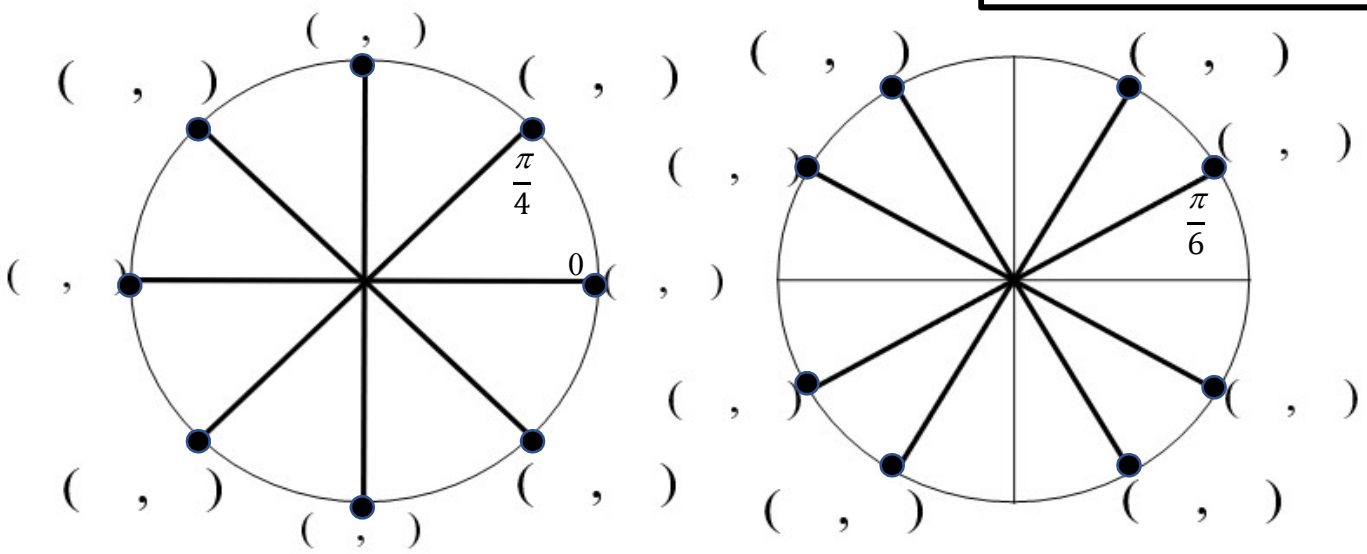
1. Complex numbers *(show work on a separate sheet of paper!)*

A. $(2 - 3i)(7 - 4i)$ B. $(1 + 4i)^2$

C. $(2 - 3i) + (7 - 4i)$ D. $(2 - 3i) - (7 - 4i)$

E. $\frac{2+i}{1+2i}$ (hint: use conjugate) F. $\frac{3-2i}{-4-i}$ (hint: use conjugate)

2. Label all radian values AND coordinates of each given terminal point.
(You will need to have this information memorized again for the ch.8 test!)



3. Define each function in terms of x and y (based on the unit circle with r = 1.)

$\sin\theta =$ $\csc\theta =$ $\cos\theta =$ $\sec\theta =$ $\tan\theta =$ $\cot\theta =$

4. Principal Values (see notes from chapter 5.)

To find a ***unique*** solution for Sinθ and Tanθ, refer only to Quadrant ___ or ___.

To find a ***unique*** solution for Cosθ, refer only to Quadrant ___ or ___.

5. Evaluate using the unit circle. Use principal values when finding the inverse, $0 \le \theta < 2\pi$. <u>No calculator!</u>

A. $\text{Arcsin}\left(-\frac{\sqrt{2}}{2}\right)$ B. Arctan(1) C. $\text{Cos}^{-1}0$ D. $\sin\left(\frac{13\pi}{6}\right)$

hint: rewrite as $\text{Sin}\theta = -\frac{\sqrt{2}}{2}$

E. $\cot\left(-\frac{5\pi}{3}\right)$ F. $\sin[\text{Arctan}(-\sqrt{3})]$ G. $\cot(\text{Cos}^{-1}(-1) + \text{Sin}^{-1}\frac{1}{2})$

Show all steps for F and G