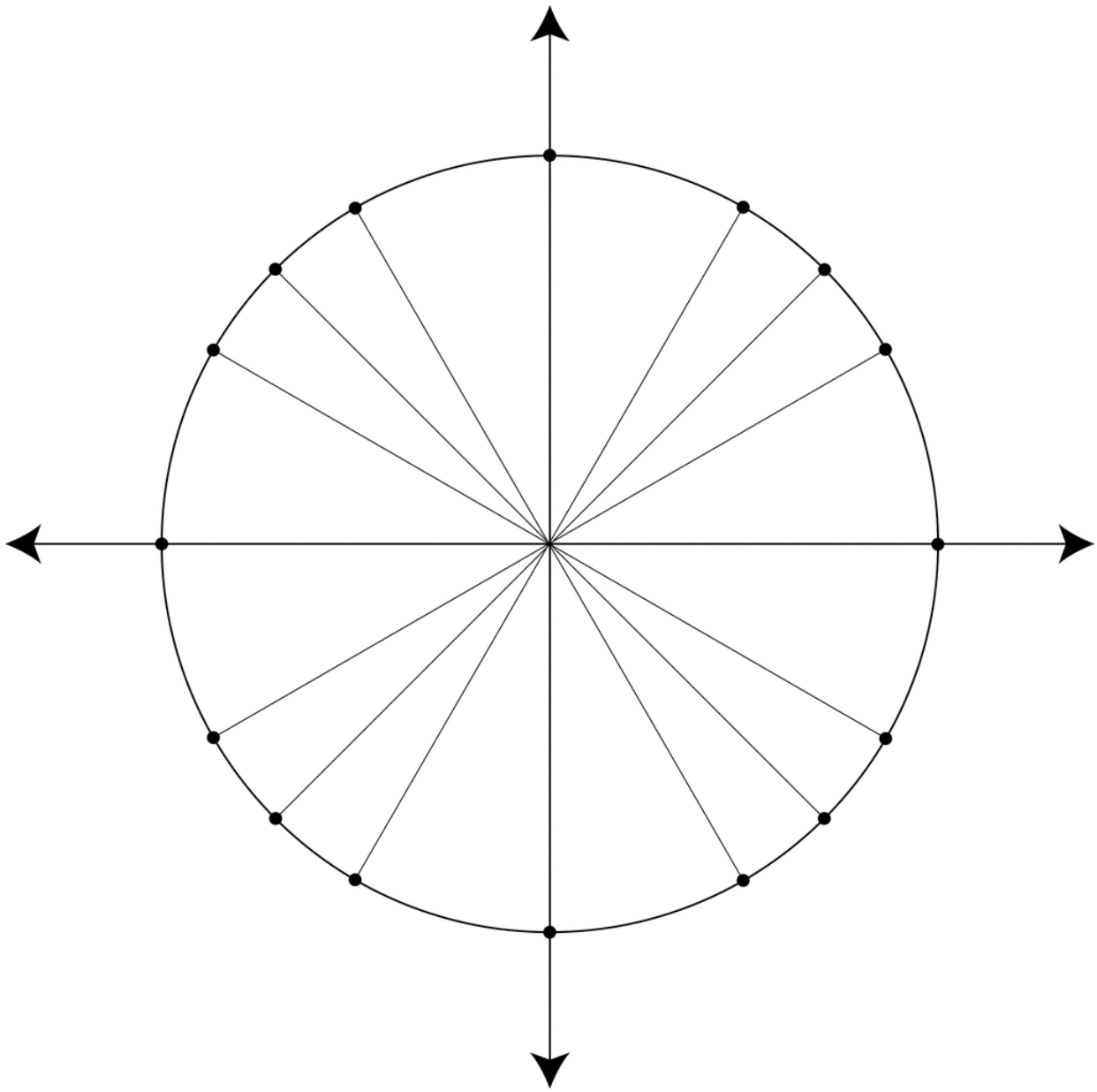
Unit #3: Trigonometry
Topic: Evaluating Trigonometric Expressions
Objective: SWBAT find the value of a trigonometric expression by using the unit circle.

Warm Up #2:

Fill in the unit circle below WITHOUT looking at your notes.



We can use the unit circle to find the exact value for individual trigonometric functions in order to evaluate a larger expression.

Example #1: Find the exact value of $\dfrac{-5sec^2\left(\frac{3\pi}{4}\right)-1}{tan\left(\frac{3\pi}{4}\right)}$

Example #2: Find the exact value of $\dfrac{(sint+tant)^2+cos^2t-sec^2t}{tant}$ when $t=\dfrac{11\pi}{6}$.

Assignment(s): Complete practice problems #1 – 14

Problem Set #3: Find the exact value for each of the following for the given value of t.

1) $\frac{tan^2t+1}{1+cot^2t}$; $t=\frac{5\pi}{3}$	2) $-\frac{1}{2}sin^2t\cdot cott\cdot csct$; $t=-\frac{7\pi}{4}$
3) $\frac{1-cos^2t}{1+cost}$; $t=\frac{17\pi}{6}$	4) $cott(tant+cott)$; $t=\frac{2\pi}{3}$
5) $5sinttant-2csctttant$; $t=-\frac{5\pi}{4}$	6) $\frac{sect-2cost}{3tantsint}$; $t=\frac{5\pi}{6}$

7) $\frac{cost}{1+sint}+\frac{cost}{1-sint}$; $t=\frac{7\pi}{3}$	8) $\frac{tant-tantsin^2t}{2sintcost}$; $t=-\frac{\pi}{4}$
9) $sin^2t(2csc^2t-3)$; $t=\frac{3\pi}{2}$	10) $\frac{cos^2t-1}{sin^2t-1}$; $t=\frac{7\pi}{6}$
11) $cost(sect-4cost)$; $t=\frac{4\pi}{3}$	12) $\frac{1-tan^2t}{1+tan^2t}+1$; $t=-\frac{\pi}{6}$
13) $sectcott-cottcost$; $t=\frac{11\pi}{4}$	14) $\frac{1}{sect-tant}-\frac{1}{sect+tant}$; $t=\frac{8\pi}{3}$