Trigonometry/Precalculus
Graphing Tangent \& Reciprocal Trig Functions
Day $\qquad$

Name
Date
Block

1) Fill in the table to graph $f(x)=\tan x$.

| x | $-\frac{3 \pi}{2}$ | $-\frac{5 \pi}{4}$ | $-\pi$ | $-\frac{3 \pi}{4}$ | $-\frac{\pi}{2}$ | $-\frac{\pi}{4}$ | 0 | $\frac{\pi}{4}$ | $\frac{\pi}{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\tan \mathrm{x}$ |  |  |  |  |  |  |  |  |  |


| x | $\frac{3 \pi}{4}$ | $\pi$ | $\frac{5 \pi}{4}$ | $\frac{3 \pi}{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\tan \mathrm{x}$ |  |  |  |  |



Plot the points above. Sketch an asymptote for each value of x that is undefined. Let the asymptotes shape your curve as you connect it.
2) The graph of $\mathrm{f}(\mathrm{x})=\sin \mathrm{x}$ is shown below. Fill in the table to graph $\csc \mathrm{x}=\frac{1}{f(x)}$.

| x | 0 | $\frac{\pi}{4}$ | $\frac{\pi}{2}$ | $\frac{3 \pi}{4}$ | $\pi$ | $\frac{5 \pi}{4}$ | $\frac{3 \pi}{2}$ | $\frac{7 \pi}{4}$ | $2 \pi$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\csc \mathrm{x}$ |  |  |  |  |  |  |  |  |  |



Plot the points above. Sketch an asymptote for each value of x that is undefined. Let the asymptotes shape your curve as you connect it.
3) The graph of $\mathrm{f}(\mathrm{x})=\cos \mathrm{x}$ is shown below. Fill in the table to graph $\sec \mathrm{x}=\frac{1}{f(x)}$.

4) Fill in the table to graph $f(x)=\cot x$.

| x | $-\pi$ | $-\frac{3 \pi}{4}$ | $-\frac{\pi}{2}$ | $-\frac{\pi}{4}$ | 0 | $\frac{\pi}{4}$ | $\frac{\pi}{2}$ | $\frac{3 \pi}{4}$ | $\pi$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\cot \mathrm{x}$ |  |  |  |  |  |  |  |  |  |


| x | $\frac{5 \pi}{4}$ | $\frac{3 \pi}{2}$ | $\frac{7 \pi}{4}$ | $2 \pi$ |
| :---: | :---: | :---: | :---: | :---: |
| $\cot \mathrm{x}$ |  |  |  |  |



1) The $\qquad$ of a sine or cosine curve represents the distance from the midline to either the peak or valley of a wave.
2) The amount of distance it takes to complete one cycle of a sinusoidal curve is called its $\qquad$ .
3) The $\qquad$ of a sinusoidal function tells how many cycles occur in the span of $2 \pi$.
4) The equation that relates the period and frequency of a sinusoidal curve is $\qquad$ .
5) For both sine and cosine curves, the domain is $\qquad$ and
the range is $\qquad$ .
6) To calculuate the tangent of an angle on the Unit Circle, divide the
$\qquad$ by the $\qquad$ .

Trigonometry/Precalculus
Day 19 Warm Up

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