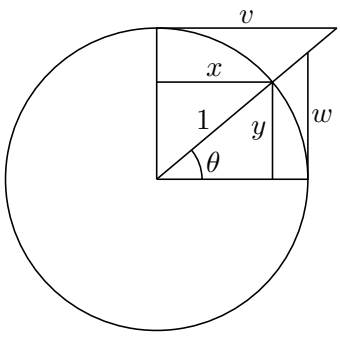
Name: _____ Mark: _____

Mini-math Div 3/4: Monday, January 4, 2021 (12 minutes)

1. (2 points) Consider the following diagram of a unit circle (lines which look perpendicular, are perpendicular):



   Write x and y as trigonometric functions of θ.

2. (2 points) Express $\tan\theta$, $\sec\theta$, $\cot\theta$, and $\csc\theta$ in terms of $\sin\theta$ and $\cos\theta$.

3. (2 points) Express $\sin^2\theta$ in terms of $\cos^2\theta$, $\tan^2\theta$ in terms of $\sec^2\theta$, and $\cot^2\theta$ in terms of $\csc^2\theta$.

4. (2 points) Express $\sin(x + y)$ and $\cos(x + y)$ in terms of $\sin x$, $\sin y$, $\cos x$, and $\cos y$.

5. (2 points) How do you convert an angle between degrees and radians?