ACMAT118 Spring 2024
Professor Manguba-Glover
Section 7.1 Homework (HW 9)                          Name: _____

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

**Due next class.** Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

1. Rewrite $\frac{\sec\theta}{\tan\theta}$ in terms of sine and cosine, then simplify

2. Rewrite $\frac{\tan^2\theta}{\sec^2\theta}$ in terms of sine and cosine, then simplify

3. Simplify $\cot x \sin x$

4. Simplify $\sin^2\theta(\csc^2\theta - 1)$

5. Simplify $\frac{\sin(-\theta)}{\cos(-\theta)}$

6. Simplify $\cot x(\sec x - \tan x)$

7. Simplify $\frac{(\sec^2\theta - \tan^2\theta)}{\sec\theta}$

8. Simplify $\frac{-\tan^2(-\theta)}{\sec^2\theta}$

9. Find the other trigonometric functions of $\theta$ if $\sin\theta = \frac{9}{41}$ and $\cos\theta = -\frac{40}{41}$

10. Find the other trigonometric functions of $\theta$ if $\cos\theta = \frac{8}{17}$ and $\sin\theta < 0$