MATH 5

Test 1

February 24, 2010

**This test is to be taken on a furlough day.
It is take-home, self-check, and not part of your grade.**

- No notes, books, or calculators are allowed.

- Please show all your work.

- Each problem is worth 5 points.

1. Convert $160°$ to radians and draw this angle in the standard position.

2. Convert $-\dfrac{2\pi}{5}$ to degrees and draw this angle in the standard position.

3. Find an angle between $0°$ and $360°$ that is coterminal with the angle $-250°$.

4. Find the reference angle of $\dfrac{10\pi}{3}$.

5. If the terminal side of angle θ in the standard position passes through the point $(0.6, 0.8)$, find $\cos\theta$.

6. If the terminal side of angle θ in the standard position passes through the point $(0.6, 0.8)$, find $\tan\theta$.

7. If the terminal side of angle θ in the standard position passes through the point $(-6, 3)$, find $\sin\theta$.

8. If θ is in quadrant III and $\sin\theta = -\dfrac{1}{7}$, find $\cos\theta$.

9. If $\csc\theta = 4$, find $\sin\theta$.

10. Find the exact value of $\cos(-3\pi)$.

11. Find the exact value of $\tan\left(\dfrac{2\pi}{3}\right)$.

12. Sketch the graph of $\sin(x - 2) + 1$.

13. Sketch the graph of $0.5\cos(x + 2\pi)$.

14. Sketch the graph of $-\tan(\pi x)$.

15. Find an equation for the curve given below.