

Name _____ Date _____ Period _____

Worksheet 5.3B—Using the Unit Circle Practice

Without having a Unit Circle in front of you, give the simplified, exact, rationalized answer (if it exists) for each of the following. If the rasion does not exist, write “DNE.”

Set I: See if you can do these in 6 minutes:

- | | | | | |
|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
| 1. $\sin \frac{5\pi}{6}$ | 2. $\cos \frac{7\pi}{6}$ | 3. $\sin \frac{3\pi}{4}$ | 4. $\cos \frac{11\pi}{6}$ | 5. $\sin \frac{5\pi}{4}$ |
| 6. $\cos \frac{4\pi}{3}$ | 7. $\cos \frac{5\pi}{4}$ | 8. $\sin \frac{2\pi}{3}$ | 9. $\cos \frac{5\pi}{6}$ | 10. $\sin \frac{3\pi}{2}$ |

Set II: See if you can do THESE in 6 minutes:

- | | | | | |
|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. $\sec \frac{2\pi}{3}$ | 2. $\csc \frac{7\pi}{4}$ | 3. $\tan \frac{\pi}{2}$ | 4. $\cot \frac{5\pi}{6}$ | 5. $\sec \frac{3\pi}{4}$ |
| 6. $\csc \frac{11\pi}{6}$ | 7. $\cot \frac{4\pi}{3}$ | 8. $\sec \frac{7\pi}{6}$ | 9. $\cot \frac{5\pi}{3}$ | 10. $\sec \pi$ |

Set III: See if you can do these in 5 minutes:

- | | | | | |
|---------------------------|--------------------------|---------------------------|-------------------------|---------------------------|
| 1. $\cot \frac{11\pi}{6}$ | 2. $\tan \pi$ | 3. $\tan \frac{4\pi}{3}$ | 4. $\cot \frac{\pi}{2}$ | 5. $\sec \frac{5\pi}{3}$ |
| 6. $\csc \frac{7\pi}{4}$ | 7. $\cot \frac{2\pi}{3}$ | 8. $\sec \frac{11\pi}{6}$ | 9. $\csc 0$ | 10. $\cot \frac{5\pi}{4}$ |

Set IV: See if you can do these in 4 minutes:

- | | | | | |
|--------------------------|--------------------------|-------------------------|--------------------------|---------------------------|
| 1. $\sin 2\pi$ | 2. $\cos \frac{3\pi}{2}$ | 3. $\tan \frac{\pi}{6}$ | 4. $\cot \frac{7\pi}{4}$ | 5. $\sec \frac{5\pi}{6}$ |
| 6. $\csc \frac{5\pi}{3}$ | 7. $\cot \frac{4\pi}{3}$ | 8. $\sec \pi$ | 9. $\sin \frac{7\pi}{6}$ | 10. $\cos \frac{2\pi}{3}$ |

Set V: You are now ready to complete these in 2 minutes:

1. $\sin \frac{2\pi}{3}$

2. $\cos \frac{5\pi}{4}$

3. $\tan \frac{7\pi}{6}$

4. $\cot \frac{3\pi}{2}$

5. $\sec \frac{4\pi}{3}$

6. $\csc \frac{7\pi}{4}$

7. $\cot \frac{11\pi}{6}$

8. $\sec \frac{\pi}{2}$

9. $\sin \frac{5\pi}{3}$

10. $\csc \frac{5\pi}{6}$

Set VI: The Ghost Pepper Challenge—you've got 1 minute:

1. $\sin \frac{7\pi}{4}$

2. $\csc \frac{5\pi}{3}$

3. $\cot \frac{\pi}{2}$

4. $\cot \frac{4\pi}{3}$

5. $\sec \frac{5\pi}{6}$

6. $\cos \frac{11\pi}{6}$

7. $\cot \frac{5\pi}{4}$

8. $\csc \frac{7\pi}{6}$

9. $\tan \frac{3\pi}{2}$

10. $\sec \frac{2\pi}{3}$

Congratulations. Take a drink of water. You are now ready for tomorrow's quiz.