Name KEY 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 ration does not exist, write "DNE."

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

1. $\sin\frac{5\pi}{6} = \frac{1}{2}$ 2. $\cos\frac{7\pi}{6} = -\frac{\sqrt{3}}{2}$ 3. $\sin\frac{3\pi}{4} = \frac{\sqrt{2}}{2}$ 4. $\cos\frac{11\pi}{6} = \frac{\sqrt{3}}{2}$ 5. $\sin\frac{5\pi}{4} = -\frac{\sqrt{2}}{2}$

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

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

1. $\sec\frac{2\pi}{3} = -2$ 2. $\csc\frac{7\pi}{4} = -\sqrt{2}$ 3. $\tan\frac{\pi}{2} = \text{DNE}$ 4. $\cot\frac{5\pi}{6} = -\sqrt{3}$ 5. $\sec\frac{3\pi}{4} = -\sqrt{2}$

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

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

1. $\cot\frac{11\pi}{6} = -\sqrt{3}$ 2. $\tan\pi = 0$ 3. $\tan\frac{4\pi}{3} = \sqrt{3}$ 4. $\cot\frac{\pi}{2} = 0$ 5. $\sec\frac{5\pi}{3} = 2$

6. $\csc\frac{7\pi}{4} = -\sqrt{2}$ 7. $\cot\frac{2\pi}{3} = -\frac{\sqrt{3}}{3}$ 8. $\sec\frac{11\pi}{6} = \frac{2\sqrt{3}}{3}$ 9. $\csc 0 = \text{DNE}$ 10. $\cot\frac{5\pi}{4} = 1$

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

1. $\sin 2\pi = 0$ 2. $\cos\frac{3\pi}{2} = 0$ 3. $\tan\frac{\pi}{6} = \frac{\sqrt{3}}{3}$ 4. $\cot\frac{7\pi}{4} = -1$ 5. $\sec\frac{5\pi}{6} = -\frac{2\sqrt{3}}{3}$

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

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

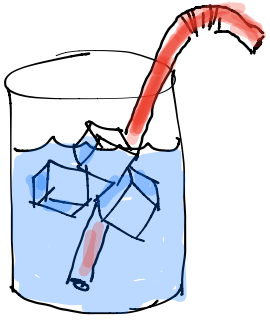
1. $\sin\frac{2\pi}{3} = \frac{\sqrt{3}}{2}$ 2. $\cos\frac{5\pi}{4} = -\frac{\sqrt{2}}{2}$ 3. $\tan\frac{7\pi}{6} = \frac{\sqrt{3}}{3}$ 4. $\cot\frac{3\pi}{2} = 0$ 5. $\sec\frac{4\pi}{3} = -2$

6. $\csc\frac{7\pi}{4} = -\sqrt{2}$ 7. $\cot\frac{11\pi}{6} = -\sqrt{3}$ 8. $\sec\frac{\pi}{2} = \text{DNE}$ 9. $\sin\frac{5\pi}{3} = -\frac{\sqrt{3}}{2}$ 10. $\csc\frac{5\pi}{6} = 2$

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

1. $\sin\frac{7\pi}{4} = -\frac{\sqrt{2}}{2}$ 2. $\csc\frac{5\pi}{3} = -\frac{2\sqrt{3}}{3}$ 3. $\cot\frac{\pi}{2} = 0$ 4. $\cot\frac{4\pi}{3} = \frac{\sqrt{3}}{3}$ 5. $\sec\frac{5\pi}{6} = -\frac{2\sqrt{3}}{3}$

6. $\cos\frac{11\pi}{6} = \frac{\sqrt{3}}{2}$ 7. $\cot\frac{5\pi}{4} = 1$ 8. $\csc\frac{7\pi}{6} = -2$ 9. $\tan\frac{3\pi}{2} = \text{DNE}$ 10. $\sec\frac{2\pi}{3} = -2$



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