Bellwork Alg 2B Wednesday, May 9, 2018

Use the Unit Circle below to find the EXACT value of each. Rationalize denominators and simplify fractions.

1. $\sin 960°$

2. $\cos\frac{-35\pi}{4}$

3. $\tan\frac{19\pi}{2}$

4. $\sin\frac{14\pi}{3}$

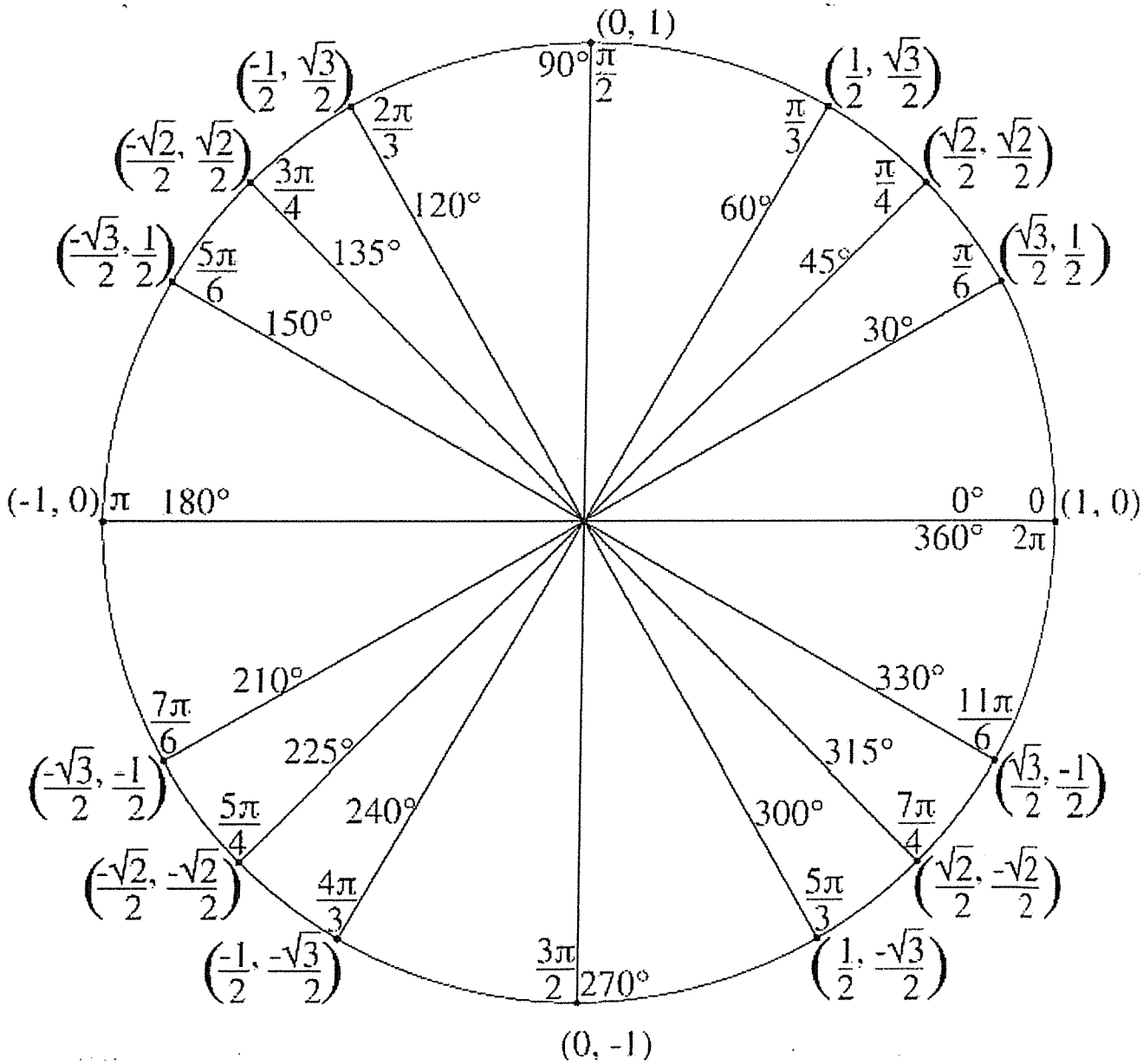
5. $\cos(-750°)$

6. $\tan 1110°$

7. $\frac{1}{\cos 510°}$

8. $\frac{1}{\sin(-315°)}$

9. $\frac{1}{\tan\frac{10\pi}{3}}$



Bellwork Alg 2B Wednesday, May 9, 2018 ANSWERS

Use the Unit Circle below to find the EXACT value of each. Rationalize denominators and simplify fractions.

1. $\sin 960° = \sin 240° = \boxed{-\frac{\sqrt{3}}{2}}$ 2. $\cos\frac{-35\pi}{4} = \cos\frac{5\pi}{4} = \boxed{-\frac{\sqrt{2}}{2}}$ 3. $\tan\frac{19\pi}{2} = \tan\frac{3\pi}{2} = \boxed{\text{UNDEFIN}}$

4. $\sin\frac{14\pi}{3} = \sin\frac{2\pi}{3} = \boxed{\frac{\sqrt{3}}{2}}$ 5. $\cos(-750°) = \cos 330° = \boxed{\frac{\sqrt{3}}{2}}$ 6. $\tan 1110° = \tan 30° = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}} = \boxed{\frac{\sqrt{3}}{3}}$

7. $\frac{1}{\cos 510°} = \frac{1}{\cos 150} = \frac{1}{-\frac{\sqrt{3}}{2}} = \frac{2}{-\sqrt{3}} = \boxed{-\frac{2\sqrt{3}}{3}}$ 8. $\frac{1}{\sin(-315°)} = \frac{1}{\sin 45°} = \frac{1}{\frac{\sqrt{2}}{2}} = \frac{2}{\sqrt{2}} = \frac{2\sqrt{2}}{2} = \boxed{\sqrt{2}}$ 9. $\frac{1}{\tan\frac{10\pi}{3}} = \frac{1}{\tan\frac{4\pi}{3}} = \frac{1}{\frac{-\sqrt{3}}{\frac{-1}{2}}} = \frac{1}{+\sqrt{3}} = \boxed{\frac{\sqrt{3}}{3}}$