Name: Answers Date: _____

Homework: Evaluating from the Unit Circle (Extra Practice) **Honors PreCalculus**

When possible find the exact value of the following trigonometric expressions. If necessary, round to three decimal places.

1. $\tan -\frac{\pi}{3}$ S|A T|C
$\frac{\sqrt{3}}{2} \div \frac{1}{2} = \boxed{-\sqrt{3}}$

2. $\csc \pi$ (-1,0)
$\frac{1}{0} = \boxed{\text{und}}$

3. $\csc 80°$ (use calculator) degree mode
$\frac{1}{\sin 80} = \boxed{1.015}$

4. $\cos 60°$ S|A T|C
$\boxed{\frac{1}{2}}$

5. $\csc \frac{7\pi}{4}$ S|A T|C
$\frac{2}{\sqrt{2}} = \frac{2\sqrt{2}}{2} = \boxed{-\sqrt{2}}$

6. $\cot \frac{\pi}{6}$ S|A T|C
$\frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \boxed{\sqrt{3}}$

7. $\tan 3\pi$ (-1,0)
$= \tan \pi$
$\frac{0}{-1} = \boxed{0}$

8. $\sin \frac{3\pi}{4}$ S|A T|C
$\boxed{\frac{\sqrt{2}}{2}}$

9. $\sec -120°$ S|A T|C
$\sec 240$
$\frac{2}{1} = \boxed{-2}$

10. $\cos \pi$ (-1,0)
$\boxed{-1}$

11. $\csc \frac{11\pi}{6}$ S|A T|C
$\frac{2}{1} = \boxed{-2}$

12. $\sec -\frac{\pi}{2}$ (0,-1)
$\frac{1}{0} = \boxed{\text{und}}$

13. $\sin \frac{8\pi}{3}$ S|A T|C
$= \sin \frac{2\pi}{3}$
$\boxed{\frac{\sqrt{3}}{2}}$

14. $\csc \frac{7\pi}{3}$ S|A T|C
$= \csc \frac{\pi}{3}$
$\frac{2}{\sqrt{3}} = \boxed{\frac{2\sqrt{3}}{3}}$

15. $\sin -\frac{7\pi}{2}$ (0,1)
$= \sin \frac{\pi}{2}$
$\boxed{1}$

16. $\tan 495°$ S|A T|C
$= \tan 135$
$\frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = \boxed{-1}$

17. $\sec 211°$ (use calculator) degree mode
$\frac{1}{\cos 211} = \boxed{-1.167}$

18. $\cos \frac{3\pi}{4}$ S|A T|C
$\boxed{-\frac{\sqrt{2}}{2}}$

19. $\tan 120°$ S|A T|C
$\frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \boxed{-\sqrt{3}}$

20. $\cot \frac{7\pi}{4}$ S|A T|C
$\frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = \boxed{-1}$

21. $\sec \frac{5\pi}{6}$ S|A T|C
$\frac{2}{\sqrt{3}} = \boxed{-\frac{2\sqrt{3}}{3}}$