

### 3.3A Sine and Cosine Function Values

AP Precalculus

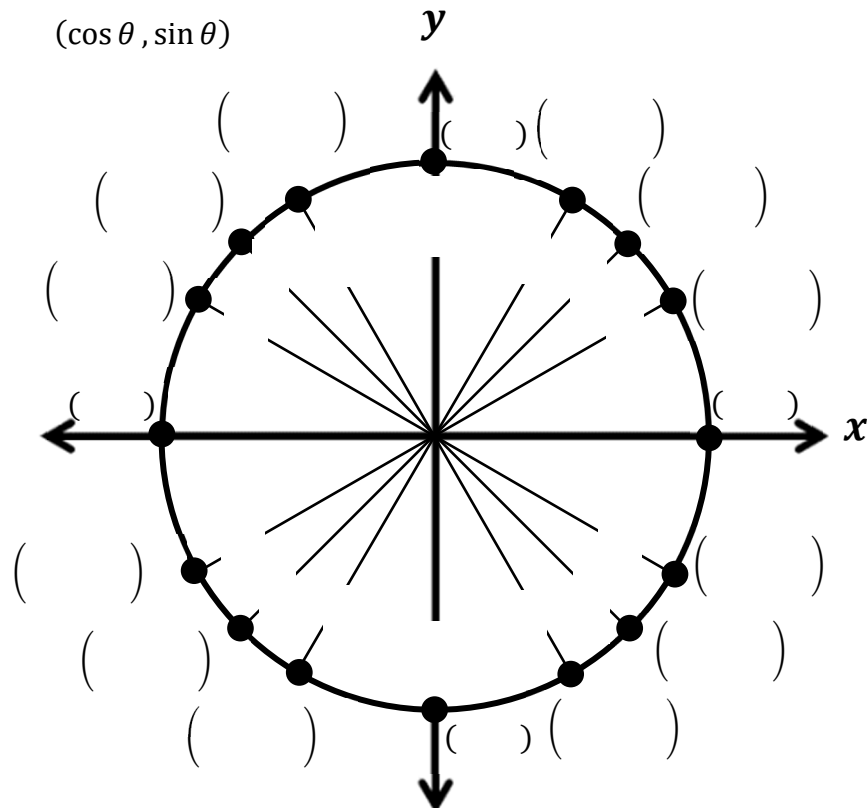
Name: \_\_\_\_\_

**CA #1**

**Find the value of each expression. Try not to look back at the Unit Circle for help.**

1. $\cos 2\pi$	2. $\sin \frac{3\pi}{2}$	3. $\cos \frac{\pi}{4}$	4. $\sin \frac{\pi}{3}$	5. $\cos \frac{5\pi}{3}$
6. $\sin \frac{4\pi}{3}$	7. $\cos \frac{5\pi}{6}$	8. $\sin \frac{7\pi}{6}$	9. $\sin \left(-\frac{7\pi}{6}\right)$	10. $\cos \left(-\frac{3\pi}{4}\right)$
11. $\cos \frac{\pi}{3}$	12. $\sin \frac{2\pi}{3}$	13. $\cos \left(-\frac{5\pi}{6}\right)$	14. $\sin \frac{5\pi}{6}$	15. $\cos \frac{\pi}{2}$
16. $\sin \left(-\frac{5\pi}{4}\right)$	17. $\cos \frac{5\pi}{3}$	18. $\sin \frac{\pi}{6}$	19. $\cos \frac{11\pi}{6}$	20. $\sin \pi$

21. Fill in the unit circle below by labeling all of the angles and coordinate points. Do all that you can without looking back at your notes. This will help you know how much you still need to study it.



Answers to 3.3A CA #1

1. 1	2. -1	3. $\frac{\sqrt{2}}{2}$	4. $\frac{\sqrt{3}}{2}$	5. $\frac{1}{2}$	6. $-\frac{\sqrt{3}}{2}$	7. $-\frac{\sqrt{3}}{2}$	8. $-\frac{1}{2}$	9. $\frac{1}{2}$	10. $-\frac{\sqrt{2}}{2}$
11. $\frac{1}{2}$	12. $\frac{\sqrt{3}}{2}$	13. $-\frac{\sqrt{3}}{2}$	14. $\frac{1}{2}$	15. 0	16. $\frac{\sqrt{2}}{2}$	17. $\frac{1}{2}$	18. $\frac{1}{2}$	19. $\frac{\sqrt{3}}{2}$	20. 0

21.

