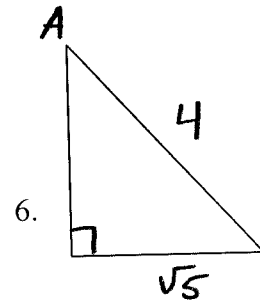
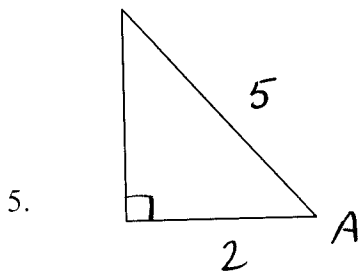
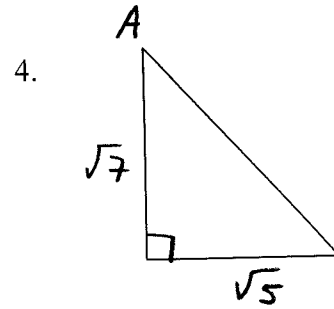
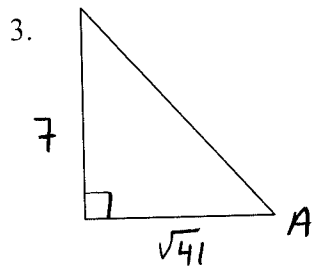
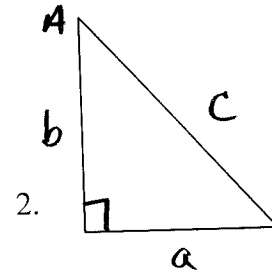
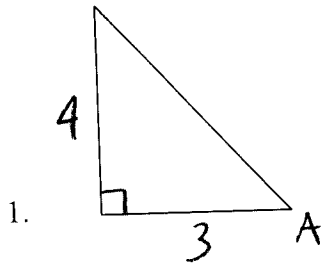


Self Check Exercises
(The trigonometric Ratios)

For each of the following right triangles with acute angle A , find $\sin A$, $\cos A$, and $\tan A$



7. Construct the Unit Circle and label all points on the circle corresponding to the angles

$0, \frac{\pi}{2}, \pi, \frac{3\pi}{2},$ and 2π radians.

8. Construct the Unit Circle and label all points on the circle corresponding to the angles

$\frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4},$ and $\frac{7\pi}{4}$ radians.

9. Construct the Unit Circle and label all points on the circle corresponding to the angles

$\frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6},$ and $\frac{11\pi}{6}$ radians.

10. Construct the Unit Circle and label all points on the circle corresponding to the angles

$\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3},$ and $\frac{5\pi}{3}$ radians.

11-30: For each of the following, refer to the Unit Circles that you constructed in exercises 1-4 to evaluate each trigonometric ratio without the use of a calculator

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

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

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

4. $\tan \pi$

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

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

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

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

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

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

11. $\cos \frac{5\pi}{6}$

12. $\cos \pi$

13. $\csc \pi$

14. $\sec \pi$

15. $\sin\left(-\frac{\pi}{4}\right)$

16. $\cos\left(-\frac{3\pi}{2}\right)$

17. $\csc\left(-\frac{5\pi}{4}\right)$

18. $\cot\left(-\frac{11\pi}{6}\right)$

19. $\cos 4\pi$

20. $\sin 12\pi$