

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

**Due next class.** Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

1. Evaluate  $\arccos\left(\cos\left(-\frac{\pi}{6}\right)\right)$
2. Evaluate  $\arcsin\left(\sin\left(\frac{4\pi}{3}\right)\right)$
3. Evaluate  $\tan^{-1}\left(\tan\left(\frac{3\pi}{4}\right)\right)$
4. Evaluate  $\sin(\tan^{-1}(\sqrt{3}))$
5. Evaluate  $\tan(\sin^{-1}(\frac{1}{5}))$
6. Evaluate  $\cos(\tan^{-1}(\frac{3}{4}))$
7. Find  $\tan(\sin^{-1}(6x))$
8. Find  $\cos \theta$  if  $\theta = \arctan x$