Handout 3: Inverse Functions - Answers
Time to work backwards: AOT-HAC-HOS

Find the value of each expression. For Problems 1-7, give your answers in degrees.

1. $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$
   $-60°$

2. $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

   $135°$

3. $\tan^{-1}(-\sqrt{3})$
   $-60°$

4. $\tan^{-1}(\sqrt{3})$
   $60°$

5. $\cos^{-1}\left(\frac{1}{2}\right)$
   $60°$

6. $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$
   $30°$

7. $\sin^{-1}\left(\frac{\sqrt{2}}{2}\right)$
   $45°$

8. $\sin(\tan^{-1}(1))$

   $\frac{\sqrt{2}}{2}$

9. $\tan\left(\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)\right)$
   -1

10. $\cos\left(\tan^{-1}(\sqrt{3})\right)$

    $\frac{1}{2}$