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.

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

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

$$2. \cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$$
$$135^{\circ}$$

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

3.
$$\tan^{-1}(-\sqrt{3})$$

-60°

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

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

4.
$$\tan^{-1}(\sqrt{3})$$
 60°

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

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

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

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