Honors Algebra 2 Name _____
WS13.4 Hour _____

Book Work: p. 954 (30 – 33 all, 39 – 41)

Find all possible values of each expression.

1. $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$
2. $\cos^{-1}\left(-\frac{1}{2}\right)$
3. $\tan^{-1}0$
4. $\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$
5. $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$
6. $\tan^{-1}\left(\frac{\sqrt{3}}{3}\right)$

Evaluate each inverse trigonometric function. Give your answer in both radians and degrees.

7. $\text{Sin}^{-1}(-1)$
8. $\text{Tan}^{-1}\left(-\sqrt{3}\right)$
9. $\text{Cos}^{-1}1$
10. $\text{Sin}^{-1}\left(\frac{\sqrt{3}}{2}\right)$
11. $\text{Tan}^{-1}\left(-\frac{\sqrt{3}}{3}\right)$
12. $\text{Cos}^{-1}\left(\frac{\sqrt{2}}{2}\right)$

Solve each equation to the nearest tenth. Use the given restrictions.

13. $\sin\theta = 0.45$, for $0° < \theta < 90°$
14. $\sin\theta = 0.801$, for $90° < \theta < 270°$

15. $\tan\theta = 2.42$, for $180° < \theta < 360°$

16. $\cos\theta = -0.334$, for $0° < \theta < 180°$

17. $\cos\theta = -0.181$, for $180° < \theta < 360°$

18. $\tan\theta = -10$, for $90° < \theta < 270°$

19. A 21-foot ladder is leaning against a building. The base of the ladder is 7 feet from the base of a building. To the nearest degree, what is the measure of the angle that the ladder makes with the ground?

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