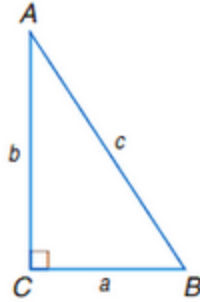


Unit 7 Project

Solve $\triangle ABC$ using the given measurements. Round measures of sides to the nearest tenth and measures of angles to the nearest degree.

1. $a = 7, A = 49^\circ$
2. $A = 22^\circ, c = 8$
3. $a = 7, c = 16$



Rewrite each degree measure in radians and each radian measure in degrees.

4. 275°
5. $-\frac{7\pi}{4}$

Find the exact value of each expression. Write angle measures in degrees.

6. $\cos(-120^\circ)$
7. $\sec(-\frac{7\pi}{6})$
8. $\sin^{-1}(-\frac{\sqrt{3}}{2})$
9. $\text{Arctan } -1$
10. Suppose Θ is in standard position whose terminal side lies in Quadrant II. find the exact values of the remaining five trigonometric functions for Θ for $\cos \Theta = -\frac{\sqrt{3}}{2}$.

State the vertical shift, amplitude, period, and phase shift of each function. Then graph the function.

11. $y = \frac{4}{3}\sin \theta + 3$

12. $y = 3 \cos [2(\theta + 60^\circ)] - 1$