

Problem 1. Find the radian measure of 108° .

Problem 2. Find the degree measure of $\frac{11\pi}{12}$.

Problem 3. If $\cos \theta = \frac{\sqrt{3}}{2}$ and $0 \leq \theta \leq \frac{\pi}{2}$, what is θ ?

Problem 4. If $\sin \theta = \frac{3}{7}$, what is $\cos \theta$?

Problem 5. A groundhog leaves his hole, crawls north for 5 meters, then runs east for 12 meters. How far is he from his hole?

Problem 6. Find the reference number (in degrees) of $x = 1000^\circ$.

Problem 7. Find the reference number (in radians) of $t = -\frac{11\pi}{6}$.

Problem 8. Find the terminal point $W(t)$ determined by $t = \frac{\pi}{3}$.

Problem 9. Find $W\left(\frac{31\pi}{4}\right)$.

Problem 10. We wanted to estimate the height of a giant sequoia in the distance. We moved until, from where we stood, the angle the top of the tree made with the ground was 30° . One of us counted the paces to the tree, and came up with 522 feet. How tall was the tree?