

Quick Hit 7

1. Find all solutions to $\cos(\theta) = \frac{1}{2}$



we want points on the unit circle whose x-coordinates are $\frac{1}{2}$, i.e. $\theta = 60$ and $\theta = -60$. extending periodically, we see that for all integers n , $60 + 360n$ and $-60 + 360n$ will be solutions

2. Compute the following

(a) $\arcsin\left(\frac{\sqrt{3}}{2}\right) = 60$

(b) $\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -60$

(c) $\arccos\left(\frac{\sqrt{3}}{2}\right) = 30$

(d) $\arccos\left(-\frac{\sqrt{3}}{2}\right) = 150$

(e) $\arctan\left(\frac{\sqrt{3}}{3}\right) = 30$

(f) $\arctan\left(-\frac{\sqrt{3}}{3}\right) = -30$