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

OUTER INNER

$P = \cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$

$\cos P = \cos\left(\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)\right)$

- $\cos P = \frac{\sqrt{3}}{2}$

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$\cos P = \frac{\sqrt{3}}{2}$ AND $\cos = \frac{x}{r}$

$x = \sqrt{3}, r = 2$

$x^2 + y^2 = r^2$

$(\sqrt{3})^2 + y^2 = (2)^2$

$3 + y^2 = 4$

$y^2 = 4 - 3$

$y^2 = 1$

$y = \pm\sqrt{1}$

$y = \pm 1$

$y = 1$

$\sin = \frac{y}{r}$

$= \frac{1}{2}$

FINDING TRIG FUNCTION OF AN INVERSE TRIG FUNCTION

1. SET INNER INVERSE EQUAL TO P
2. ELIMINATE INVERSE TRIG FUNCTION
3. USE x, y, AND r FORMULAS TO FIND ALL THESE VARIABLES
4. FIND OUTER TRIG FUNCTION