1. Solve over $[-4\pi, -\pi]$: $\cot x = -\frac{1}{\sqrt{3}}$

2. Solve for $x$: $y = \frac{3 + \cos^{-1}(2x - 1)}{5}$

3. Solve over $[0, 2\pi)$: $2\sin x \cos x = 1$