Class Discussion: Solving Trigonometric Equations

EXAMPLE (a): Find all of the solutions to the equations.

$$6\sin(3x) = -3\sqrt{3} \ \text{ and } \ 6\cos(3x) = -3\sqrt{3}.$$

EXAMPLE (b): Find the specific solutions to $6\sin(3x) = -3\sqrt{3}$ on the interval $[0, 2\pi)$.