16. $f(x) = 2x - 1$

$L = -5$ $\qquad \varepsilon = 0.12$

$x_0 = -2$

Find open interval about x_0 where

$$|f(x) - L| < \varepsilon$$

substitute known values & solve for x

$$|f(x) - (-5)| < 0.12$$

$$|2x - 1 + 5| < 0.12$$

$$|2x + 4| < 0.12$$

we need to remove the absolute value by adding the lower bound on the left side

$$-0.12 < 2x + 4 < 0.12$$

$$-4 \qquad -4 \quad -4$$

$$\frac{-4.12}{2} < \frac{2x}{2} < \frac{-3.88}{2}$$

$-2.06 < x < -1.94$

Solving for δ so that $|f(x) - 2| < 0.12$ still holds.

$2.06 - 2 = 0.06$

$2 - 1.94 = 0.06$

$\delta = 0.06$