7. $\lim_{x \to \underbrace{2}_{c}} (\underbrace{5x-1}_{f(x)}) = \underbrace{9}_{L}$

$|f(x) - L| < 0.01$ WHEN $0 < |x-c| < \delta$

$|5x-1-9| < 0.01$ $\quad 0 < |x-2| < \delta$

$|5x-10| < 0.01$

$5|x-2| < 0.01$

$\frac{5|x-2|}{5} < \frac{0.01}{5}$

$|x-2| < \frac{0.01}{5}$ so $\delta = \frac{0.01}{5}$

START WITH $|x-c| < \delta$

$|x-2| < \frac{0.01}{5}$

$5|x-2| < 5\left(\frac{0.01}{5}\right)$

$|5x-10| < 0.01$

$|5x-1-9| < 0.01$

$|f(x)-L| < 0.01$ ✓