(a) For the limit $\lim_{x \to 1} (x^3 + x + 3) = 5$, use a graph to find a value of δ that corresponds to $\varepsilon = 0.4$. (Round your answer down to three decimal places.)

$\delta =$ 0.093 ✓ 0.093

Gives the smaller value of δ.

(b) By solving the cubic equation $x^3 + x + 3 = 5 + \varepsilon$, find the largest possible value of δ that works for any given $\varepsilon > 0$.

$\delta(\varepsilon) =$ 0 ✗

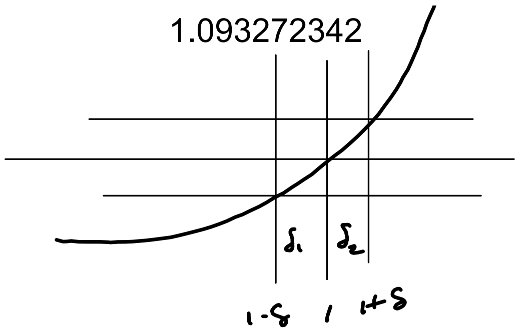
$$\frac{(216+108\epsilon+12\sqrt{336+324\epsilon+81\epsilon^2})^{2/3}-12}{6(216+108\epsilon+12\sqrt{336+324\epsilon+81\epsilon^2})^{1/3}}-1$$

(c) Put $\varepsilon = 0.4$ in your answer tc

$$\frac{\left(216+108\,e+12\sqrt{81\,e^2+324\,e+336}\right)^{2/3}-12}{6\left(216+108\,e+12\sqrt{81\,e^2+324\,e+336}\right)^{1/3}}$$

$\delta(0.4) =$ (No Response)

1.093272342



$\delta_1 > \delta_2$ because it's concave up. (getting more steep)