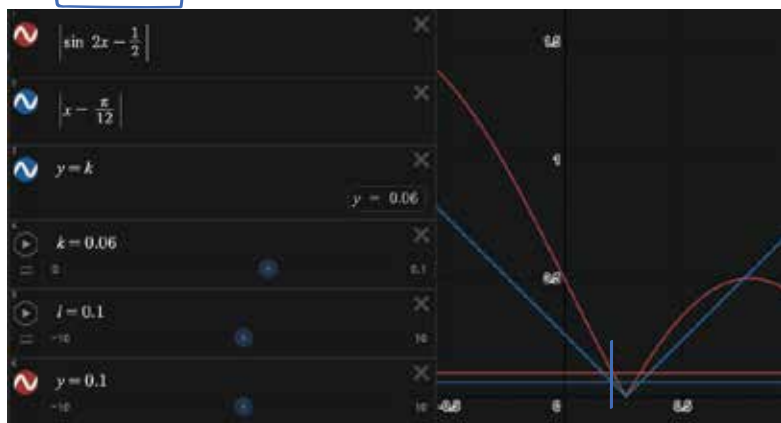$\delta = 0.06$

↑ Zach and abi reccomended this..?

Albert Huang

4 Sep 2020.   1 hour

190:

$$\lim_{x \to 2} \frac{2x^2 - 3x - 2}{x - 2} = 5$$

$$\frac{(2x - 2)(x - 2)}{x - 2} = 5$$

$$(2(x + \delta) - 2) = 5 + \varepsilon$$

$$2(2) + 2\delta - 2 = 5 + \varepsilon$$

$$2 + 2\delta = 5 + \varepsilon$$

$$2\delta = \varepsilon + 3$$

$$\delta = \frac{\varepsilon + 3}{2}$$

192:

$$\lim_{x \to 2} x^2 + 2x = 8$$

$$(x \pm \delta)^2 + 2(x \pm \delta) = 8 \pm \varepsilon$$

$$x^2 + \delta^2 \pm 2x\delta + 2x \pm 2\delta = 8 \pm \varepsilon$$

$$4 + \delta^2 \pm 4\delta + 4 \pm 2\delta = 8 \pm \varepsilon$$

I think I'm confused... how were we supposed to do this? I felt like each step in class made sense, but I'm not confident in the big picture of the proof.