

$$f(x) = \frac{5}{3x^3 + 2x} \quad (-2, -3)$$

$$m = \lim_{h \rightarrow 0} \frac{f(c+h) - f(c)}{h} = \lim_{h \rightarrow 0} \frac{f(-2+h) - f(-2)}{h}$$

$$m = \lim_{h \rightarrow 0} \frac{\frac{5}{3(-2+h)^3 + 2(-2+h)}}{h} - \frac{\frac{5}{3(-2)^3 + 2(-2)}}{h}$$

$$m = \lim_{h \rightarrow 0} \left(\frac{\frac{5}{3(-8+4h-2h^2+h^3) + (-4+2h)}}{h} - \frac{\frac{5}{-24-4}}{h} \right)$$

$$m = \lim_{h \rightarrow 0} \left(\frac{\frac{5}{-24+12h-6h^2+3h^3-4+2h}}{h} - \frac{\frac{5}{-28}}{h} \right)$$

$$m = \lim_{h \rightarrow 0} \left(\frac{\frac{5}{3h^3-6h^2+14h-28}}{h} - \frac{\frac{5}{-28}}{h} \right)$$

$$m = \lim_{h \rightarrow 0} \left(\frac{5(-28) - 5(3h^3-6h^2+14h-28)}{-89h^3+168h^2-392h+789} \right)$$

$$m = \lim_{h \rightarrow 0} \left(\frac{-140 - 15h^2 + 30h^2 - 70h + 140}{-89h^3 + 168h^2 - 392h + 789} \right)$$

$$m = \frac{-15(0)^2 + 30(0) - 70}{-89(0)^3 + 168(0)^2 - 392(0) + 789}$$

$$\frac{70}{789} = \frac{5}{56}$$