Quiz 16

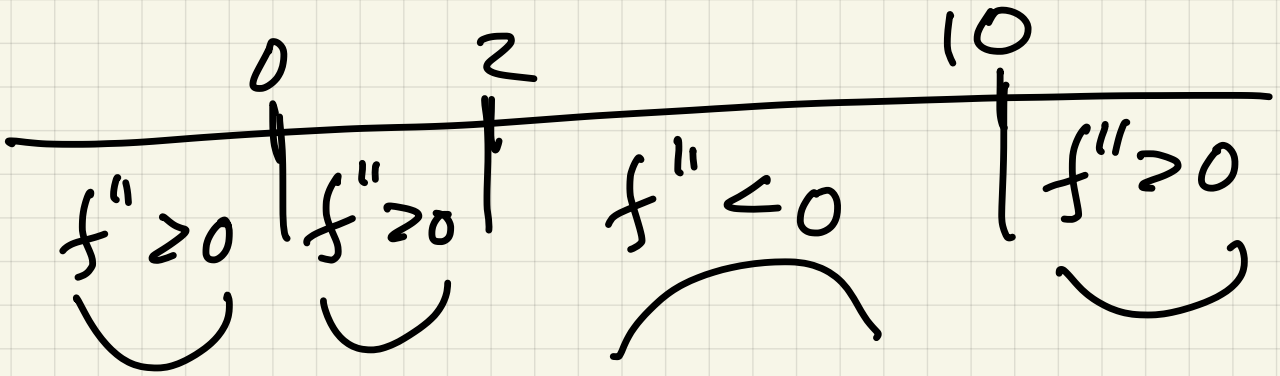
#1 $f' = \frac{1}{5}x^5 - 3x^4 + \frac{20}{3}x^3 \Rightarrow$

$f'' = x^4 - 12x^3 + 20x^2$

$= x^2(x^2 - 12x + 20) =$

$= x^2(x-2)(x-10) = 0$ at $x = 0, 2, 10.$

#2



f concave up on $(-\infty, 2) \cup (10, \infty)$

concave down on $(2, 10)$

#3 Inflection points occur at $x = 2$, $x = 10$.