| | Quiz #7 Math 101 | 131 | |
|-------|--------------------------------|-----|------|
| Name: | I.D. | | |
| | $f(x) = 2x + 2x^{\frac{2}{3}}$ | | |

Q27/5.3 Consider the function $f(x) = 2x + 3x^3$ Follow the steps to sketch the Graph of the function.

1) Find y-int. then x-int. then check if the graph above the x-axis or below.

f _____

f' _____

2) Find critical points then check if the graph increasing or decreasing, then find relative extreme

3) Check the behavior of the graph as $x \to \infty$ and $x \to -\infty$

- 4) Find asymptotes if any
- 5) Check if the graph concave up or down then find inflection points if any

f " _____

6) Is there a cusp or a vertical tangent

