

NAME: _____ Score _____/10

Please **print** your name

You must show your work in order to receive credit.

Each of the following questions refer to the function f whose rule is

$$f(x) = \frac{(x+2)(x-3)(x+3)(x+4)}{2x(x-3)(x+4)(x+1)}$$

1. f is a _____ function.
2. What is the domain of f ?
3. What are the zeros of f ?
4. What are the vertical asymptotes of the graph of f .
5. If the graph of f has a horizontal asymptote what is it ?