

Using derivatives to graph a function without a calculator #1

$$f(x) = x^5 - 5x^4$$

- a. Find the x intercepts.
- b. Find the y intercepts
- c. Find any asymptotes (horizontal and vertical)
- d. Find the end behavior.
- e. Find the first derivative (get a common denominator).
- f. Find the critical points. (hint: set numerator=0 and denominator = 0)
- g. Use the critical points to find any max/mins. (hint: use a sign line)
- h. State intervals of increase and decrease.

