Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Sample Quiz

1. Find the limits of each of the following
	1. $\lim\_{h\to 0}\frac{\left(x+h\right)^{2}-x^{2}}{h}$
	2. $\lim\_{x\to 2}\frac{5x^{3}-20x}{2x-4}$
	3. $\lim\_{x\to 2}\frac{5x^{3}+24x}{2x+4}$
	4. $\lim\_{x\to 2}\frac{5x^{3}+24x}{2x-4}$

Based on 1a, 1b, 1c, 1d answer the following questions

* 1. Which of the above has a limit that can be found only using direct substitution?
	2. Which of the above is a definition of the derivative for a particular polynomial?
	3. Which of the above has no limit?
	4. Which of the above initially has indeterminate form?







