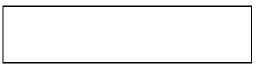
HOMEWORK ASSIGNMENT #1 due in class on Friday, September 13

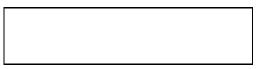
Student No:	Name (Print):	
They must be on standaments which are not stacked class. Please enter your trar's list) in the space.	ard $8\frac{1}{2} \times 11$ size paper an apled will not be accept student number and not above. SURNAME Flout your answers in the	ss one week after being assigned and they must be stapled. Assigned. I will not bring a stapler to ame (as it appears on the registrance (as it appears), and given boxes (if provided) and submit
1. Compute the following l	imits:	
(a) $\lim_{x \to -2} (x^3 - 3x^2 + 5)$		
(b) $\lim_{x \to -1} \frac{(3x^2 + 2x + 1)^{10}}{(x^3 + 5)^5}$		
(c) $\lim_{t \to 2} (-3t^3 - 4t + 5)^{1/3}$		
(d) $\lim_{t \to 3} \frac{t^2 - 9}{t - 3}$		
(e) $\lim_{t \to -3} \frac{t^3 - 9t}{t + 3}$		

$$(f) \lim_{z \to 9} \frac{3 - \sqrt{z}}{9 - z}$$



2. Find an equation of the tangent line of y = f(x) at x = a for the following:

(a)
$$y = x^2 + x$$
, $a = 2$



(b)
$$y = \frac{x+1}{x-1}$$
, $a = 3$



(c)
$$y = \sqrt{x+1}, \ a = 3$$



3. Evaluate the following limits:

(a)
$$\lim_{h \to 0} \frac{1}{h} \left(\frac{1}{\sqrt{1+h}} - 1 \right)$$

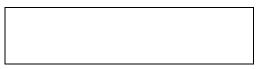


(b)	$\lim_{x \to 0}$	$\sqrt{x+4}-2$
		x

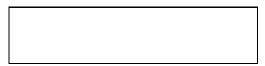


4. A certain function y = f(x) satisfies f(1) = -1, f'(1) = 2.

(a) Determine an equation for the tangent line at x = 1.



(b) Find the x and y intercepts of the tangent line.



(c) Graph the tangent line.