CALCULUS JOURNAL Limits

1.	The difference between finding $f(5)$ and $\lim_{x\to 5} f(x)$ is
	$x \rightarrow 5$
2.	The difference in finding $\lim_{x \to -3^+} f(x)$ and $\lim_{x \to -3} f(x)$
3.	The special situation where it might be necessary to add a negative to the value of a limit, is when <i>x</i> approaches, the function is a(n) which results in
4.	When evaluating limits involving e^x and $\ln x$, you should consider
5.	functions have asymptotes.
5.	vertical asymptotes are possible in one function, while horizontal asymptotes are possible in one function.
7.	Tree for evaluating limits

8. Two special trig function limits

9.
$$\lim_{x \to -\infty} e^x =$$
 $\lim_{x \to \infty} e^x =$ $\lim_{x \to \infty} \ln x =$ $\lim_{x \to \infty} \ln x =$ $\lim_{x \to \infty} \ln x =$

$$\lim_{x\to\infty}e^x=\underline{\hspace{1cm}}$$

$$\lim_{x\to 0^+} \ln x = \underline{\hspace{1cm}}$$

$$\lim_{x \to \infty} \ln x = \underline{\hspace{1cm}}$$

10. Steps for identifying asymptotes

Vertical

Horizontal

11. Steps for proving continuity at a point

12. Sketch a graph of a function that meets the following conditions. (There are many possibilities.)

a)
$$f(-2) = 6$$

b)
$$f(7) = -3$$

c)
$$\lim_{x \to -2} f(x) = 1$$

d)
$$\lim_{x\to 7} f(x)$$
 does not exist

e)
$$\lim_{x \to -\infty} f(x) = \infty$$

$$f) \quad \lim_{x \to \infty} f(x) = 8$$

g) It passes the vertical line test.