

Honors Finite Math - Unit 10: The Limit and Derivative of a Function

Learning Target Progress Tracking

	Level 1	Level 2	Level 3	Level 4
Learning Target	Understand while teacher is explaining	Can work problem on my own w/example to follow	Can work a problem similar to one I've seen w/o needing an example	Understand concept/procedure well enough to teach others and to work problems not similar to ones I've seen
Find the left and right side limits of a function at an x value (given the function equation or graph). Give the limit value at this value (or explain why the limit does not exist).				
Use algebraic simplification, factoring, synthetic division to evaluate limits for indeterminate form cases.				
Evaluate limits at infinity (x->infinity, horizontal asymptotes) and infinite limits (at vertical asymptotes).				
Determine whether a function is continuous at a stated x value (given function equation or graph).				
Use the definition of derivative ($\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$) to find the derivative of a function.				
Use the fact that derivative of a function, slope of function curve at a given x value, instantaneous rate of change of the function, and slope of line tangent to a curve at a given point are all equivalent statements to solve problems (e.g. find equation of line tangent to curve at a given point, how quickly is population increasing in 2013?)				
Use derivatives to solve velocity and acceleration problems.				