

## Calculator Functions for the AP Precalculus Exam

	Task	Calculator Keys	Example				
Saving Time & Avoiding Typos	Store Functions	Enter into [Y=] To retrieve, [ALPHA] [Trace], then select from menu	Evaluate functions and related expressions $\frac{Y_1(5) - Y_1(3)}{5 - 3}$				
	Store Values	[ANS] on home screen STO $\triangleright$ ALPHA (pick favorite letter)	Store parameter values of regression model $a = 21.8294384$				
Graph Analysis	Find zeros of a function	[Y=] [GRAPH] [2 <sup>nd</sup> ] [Trace] [2:Zero] Move cursor left bound, then right bound, of the x-intercept. [ENTER]	Determining intervals where a function is positive or negative: identify zeros as endpoints of intervals				
	Find intersections of curves	Enter both functions into [Y=] as $Y_1$ and $Y_2$ [2 <sup>nd</sup> ] [Trace] [5:Intersect] Put cursor on 1 <sup>st</sup> curve, then 2 <sup>nd</sup> curve, [ENTER]	Solving equations: When is $f(x) = g(x)$ ?				
	Find extrema	[Y=] [2 <sup>nd</sup> ] [Trace] [3:Minimum] or [4:Maximum] Put cursor to left of extrema, then to the right, [ENTER]	Finding the maximum or minimum value of a certain quantity				
Regression	Enter data	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>STAT</td><td>1: EDIT</td></tr></table> L1 $\rightarrow$ L2 $\rightarrow$ View Scatterplot <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2<sup>nd</sup></td><td>Y=</td></tr></table> Plot 1: ON L1 L2	STAT	1: EDIT	2 <sup>nd</sup>	Y=	Use a regression equation to model data given in a table of values
	STAT	1: EDIT					
2 <sup>nd</sup>	Y=						
Calculate regression model	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>STAT</td><td><math>\triangleright</math>CALC</td></tr></table> 4: LinReg (ax+b)      8: LinReg (a+bx) 5: QuadReg            9: LnReg 6: CubicReg           0: ExpReg 7: QuartReg           C: SinReg  Calculate X List: L1 Y List: L2	STAT	$\triangleright$ CALC	Find a predicted value based on the regression model			
STAT	$\triangleright$ CALC						