

Week 1 Homework

Name _____ PER _____ DATE _____

You can use [desmos.com](https://www.desmos.com) to graph the following functions (or try graphing them by hand!) I'll post answers on Monday!

1. Determine whether the following functions are one-to-one. Justify your answer with the technique of your choice.

a) $f(x) = x^2 - x$

c) $f(x) = 5x - 2$

b) $g(x) = -\sqrt{2 - x}$

d) $g(x) = \frac{x}{x^2 - 9}$

2. Calculate the inverses of the following one-to-one functions.

a) $f(x) = \frac{x + 5}{2x - 5}$

c) $f(x) = -5\sqrt{x + 1}$

b) $g(x) = \sqrt[3]{x} + 1$

d) $g(x) = 6x - 10$

Unit 4: Algebraic Functions, Graphs, and Their Inverses

Name _____ PER _____ DATE _____

LT	Description	ST.	Date / ES	HW	Quiz
4A	I can <u>explain</u> what it means to be one-to-one and prove that a function is one-to-one.	PC 10			
4B	I can <u>explain</u> how find the inverse functions for algebraic functions and provide both an example and a counterexample.	PC 10			
4C	I can <u>explain</u> how composition is used to determine if two functions are inverses.	PC 10			

Pre-Calc Homework POLICY!

M	T	W	Th	F
		TURN IN HM1		GET HM2
	GET BACK HM1	TURN IN HM2		GET HM3

- HOMEWORK WILL NOT CHANGE YOUR CLASS GRADE
- KEEP HOMEWORKS TO REVIEW FOR ASSESSMENTS
- GRADE WILL BE BASED ON ANSWERS & SUFFICIENT WORK / JUSTIFICATION