

Problem Set 1B: Practice Problems 1

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MAT 123 - Precalculus

Summer Session II 2018

DUE DATE: NEVER.

Exercise 0. Review sections 1.1 – 1.6. Re-read everything thoroughly. Done? Good! You may now move to **Exercise 1**.

Exercise 1. Let $f(x) = \frac{x}{x+3}$. Write f as a composition of $g(x) = 1/x$ with some other functions and then graph f . Once you've graphed f , graph $2f(x) - 1$.

Exercise 2. Let f be the function which has the expression $f(x) = \frac{7x-2}{x^2-2x-1}$. Find the domain of f . Explain your answer.

Exercise 3. Is the composition of two even functions also even? If so, prove it. If not, explain why not.

Exercise 4. Graph the function defined by $f(x) = 2x^2 + x - 6$.

Exercise 5. Find the domains of the functions $f(x)$ from the exercises 1 and 4 above.