

Reading Assignment for Section 1.2

MATH 130: Calculus I, Section 4

Spring Semester 2017

Follow the general guidelines for the Reading Assignment (the salmon colored handout).

Be sure to include and label all four standard parts 1,2,3,4 of the Reading Assignment in what you hand in. Be sure to **staple** together pages if you have more than one, and include your **name** at the top of the page. Neatness is appreciated!!!

Due: at the beginning of class on Friday, January 20th

Read:

Section 1.2, pages 12-21: Representing Functions

Notes:

In this section we review different types of functions, how to graph functions, and how to use a graph of one function to find the graph of another.

Remember that your answers should include complete sentences for every question.

Reading Questions for part (1), Response:

a) If $f(x)$ and $g(x)$ are both odd functions with domain and range the real numbers, can you say whether the function h defined by $h(x) = f(x) - g(x)$ is an odd function or an even function, or neither? What about $j(x) = \frac{f(x)}{g(x)}$? Be sure to explain your answer.

b) Draw the Venn diagrams in Figure 1.17 of the text. Where do linear functions fit into this? Add it to your picture and briefly explain why it fits there. Why do the authors make it look like polynomials are rational functions? Choose a function of each type and add it to your diagram in the proper location (that is, choose a rational function that is not a polynomial and insert it in the circle that includes rational functions but not polynomials, etc.).

c) Describe in your own words what is meant by a piecewise linear function. Give two examples of such functions and graph them.

d) Suppose you are given the graph of $y = f(x)$. Describe how you would obtain the graph of the function $y = -f(x - 4)$.

Remember parts 2-4 on the salmon handout!