

MTH 95 Writing Assignment 1

Functions

Due: Beginning of class July 23, 2007

Grading: All answers are expected to be written in complete sentences and use appropriate punctuation. Writing assignment grades will be based on the accuracy and completeness of answers. (Do not copy the definitions from the book, this plagiarism.)

Functions:

1. What is a function? What is the domain and range of a function? Give a real world example (i.e. use words to describe it) of a function you have encountered in your life. Specify the domain and range of your function.
2. Explain how to apply the vertical line test and what it tells you. Give a graphical example which passes the vertical line test and a graphical example which the test and explain why in each case.

Rational Expressions:

1) Nancy incorrectly simplifies $\frac{x+2}{x}$ as

$$\frac{x+2}{x} = \frac{\cancel{x}+2}{\cancel{x}} = 1+2 = 3.$$

She insists this is correct because it checks when x is replaced with 1. Explain her misconception and give an example (a different value for x) that could convince her the simplification is incorrect.