Quiz 1

Math 3C: Precalculus

October 3, 2019

Welcome to your first quiz! Please remember that these assessments are **informal** and **low-stakes**: we will drop your lowest three quiz grades :)

When you finish, please remain seated until class is dismissed.

Name: Solutions PID: _____

Problem 1 (4 points). Consider two quantities, u and v, which are related to each other with the following table:

u	-5	-2	0	1	6	7	9
v	1.5	2	2.5	6	8	4	2

(a) Is v a function of u? Give a brief (1 sentence, 2 sentences MAX) explanation why.

Yes.

v is a function of u because there is exactly 1 value of v for each value of u.

(b) Is v a one-to-one function of u? Give a brief (1 sentence, 2 sentences MAX) explanation why.

No.

v is not a one-to-one function of u because there are two different values of u that correspond to the same value of v.

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(u values "-2" and "9" both correspond to the v value "2".)

Problem 2 (6 points). Consider the set of all numbers greater than 0 (not including 0).

(a) Describe this set using inequality notation.

$x > 0$

(b) Describe this set using interval notation.

$(0, \infty)$

(c) Consider the function $f(x) = x^2$.
Is the set of numbers you described in 2a and 2b the **range** of f? Why or why not?

No.

The range is the set of all outputs of f, but 0 is an ouptut too since $f(0)=0$.

0 isn't in the set above, so the set isn't the range.