

San José State University
Fall 2015
Math-8: College Algebra
Section 03: MW noon–1:15pm
Section 05: MW 4:30–5:45pm

Quiz #8

Closed book and notes, and no calculators. Show all work for full credit.

1. A function maps a set of independent values called the _____ to a set of dependent values called the _____. The subset of the codomain actually used is called the _____.

2. What are the two requirements for values in the domain of a function?

3. Solve for x , giving your answer in interval notation.

$$2|5 - 3x| + 7 < 21$$

4. You start a side-business manufacturing widgets. The variable costs are \$2 per widget. The fixed costs are \$500 per month. You would like to keep your monthly costs between \$1000 and \$2000 per month. What are the minimum and maximum number of widgets that you can make per month?

5. Determine the domain of the following function:

$$f(x) = \frac{x - 5}{\sqrt{x^2 - 9}}$$