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

Quiz #1

In problems 1–3, match each set operation with its corresponding definition.

1. $A \cup B$	A. $\{c \mid c \in A \text{ and } c \in B\}$
2. $A \cap B$	B. $\{c \mid c \in A \text{ or } c \in B\}$
3. $A - B$	C. $\{c \mid c \in A \text{ and } c \notin B\}$

1 _____
2 _____
3 _____

4. Check the corresponding boxes to indicate that a number is a member of a particular set.

	-5	$\sqrt{13}$	0	$\frac{10}{5}$	0.384	$10.056\overline{123}$	π
N							
W							
Z							
Q							
R-Q							
R							

5. True or false: Between any two rational numbers there is an infinite number of irrational numbers and between any two irrational numbers there is a finite number of rational numbers.

6. Fill in the blanks.

Semantically, we think of $|a|$ as the _____ from a to _____.

7. Evaluate: $\frac{|5-9|}{2} =$

For problems 8–10 let:

A = {real numbers between -2 and 2, inclusive}
B = {positive real numbers}

8. Express A and B in set-builder notation.

A =

B =

9. Express A and B in interval notation.

A =

B =

10. Express the following operations in interval notation.

$A \cup B =$

$A \cap B =$

$A - B =$