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

Quiz #2 (take-home)

Instructions:

Print out this quiz, do it, and turn it in on Wednesday, Sept 9 at the start of class. The quiz is open book and open notes with no time limit (other than the due date), but do not use a calculator and do not work or discuss the quiz with anyone else.

Good luck!

In problems 1–4, fill in the blanks.

1. An algebraic expression is a sum of _____.

2. An algebraic term is a product of constants (called _____) and _____.

3. An algebraic equation is two algebraic _____ separated by _____.

4. We _____ an algebraic expression, but we _____ an algebraic equation.

5. Identify the parts of the term $-\frac{2xy^2z}{13}$:

Coefficient: _____

Variables: _____

6. True or false: There exists $x, y \in \mathbb{R}$ such that $x, y \neq 0$ and $xy = 0$.

7. Evaluate $5(3 - (x - 3))$ at $x = 1$.

8. A careful solution of $5x - 3 = 12$ is given below. Give the rationale for each step from the ten real number rules (A1–A4, M1–M4, LD, RD) and two additional rules (SUB, CAN) that we discussed in lecture. Note that some steps have two things to identify.

$5x - 3 = 12$	
$(5x - 3) + 3 = 12 + 3$	_____
$(5x - 3) + 3 = 15$	_____
$5x + (-3 + 3) = 15$	_____
$5x + 0 = 15$	_____, _____
$5x = 15$	_____, _____
$\frac{1}{5}(5x) = \frac{1}{5}(15)$	_____
$\frac{1}{5}(5x) = 3$	_____
$(\frac{1}{5}5)x = 3$	_____
$1x = 3$	_____, _____
$x = 3$	_____, _____

9. Solve: $\frac{3(x-5)}{4(x+1)} = \frac{9}{2}$

10. Evaluate the left-hand-side expression in (9) at your answer in order to prove that you have found a correct solution.