

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

Homework Week 1 Solutions

4. Classify  $\left\{3, -1, \frac{1}{3}, \frac{6}{3}, -\frac{\sqrt{2}}{2}, -7.5\right\}$

	3	-1	$\frac{1}{3}$	$\frac{6}{3}$	$-\frac{\sqrt{2}}{2}$	-7.5
<b>N</b>	*			*		
<b>W</b>	*			*		
<b>Z</b>	*	*		*		
<b>Q</b>	*	*	*	*		*
<b>R-Q</b>					*	
<b>R</b>	*	*	*	*	*	*

6. Classify  $\left\{25, -17, \frac{12}{5}, \sqrt{9}, \sqrt{8}, -\sqrt{8}\right\}$

	25	-17	$\frac{12}{5}$	$\sqrt{9}$	$\sqrt{8}$	$-\sqrt{8}$
<b>N</b>	*			*		
<b>W</b>	*			*		
<b>Z</b>	*	*		*		
<b>Q</b>	*	*	*	*		
<b>R-Q</b>					*	*
<b>R</b>	*	*	*	*	*	*

9.  $\frac{14}{11} = 0.\overline{126}$

10.  $\frac{49}{160} = 0.30625$

23.  $x \leq 4$  or  $(-\infty, 4]$

24.  $x > -1$  or  $(-1, \infty)$

25.  $0 < x \leq 3$  or  $(0, 3]$

26.  $-4 \leq x < -2$  or  $[-4, -2)$

37.  $x > 0$  or  $(0, \infty)$

43.  $-0.005 \leq r \leq 0.038$  or  $[-0.005, 0.038]$

44.  $0 \leq x \leq 4.00$  or  $[0, 4.00]$

46.  $|0| = 0$

48.  $-\left|\frac{1}{3}\right| - \left|-\frac{2}{3}\right| = -\frac{1}{3} - \frac{2}{3} = -\frac{3}{3} = -1$

50.  $-6| - 0.2| = -6(0.2) = -1.2$

52.  $\frac{|-4|}{4} = \frac{4}{4} = 1$

71.  $|z - 6| > 1$

74.  $|z| < 8$

78.  $|y - a| < 2$

79.  $|27 - 108| = |-81| = 81$  miles

89.

diff =  $|16 - 15.973| = 0.027 > 0.02 \rightarrow$  fail  
%error =  $\frac{0.027}{16} \times 100\% \approx 0.17\% > 0.12\% \rightarrow$  fail

92.

diff =  $|17 - 16.992| = 0.008 < 0.02 \rightarrow$  pass  
%error =  $\frac{0.008}{17} \times 100\% \approx 0.05\% < 0.12\% \rightarrow$  pass