East Los Angeles College

Department of Mathematics

Math 125

Test 1

Let $A = \{0,2,4,6,8\}$ $B = \{1,3,5,\}$ $C = \{a, b, c, d, e\}$

$D = \{0,1,2,3\}$ $E = \{a, e, i, o, u\}$ $F = \{0,5,10,15\}$

Determine the following operations with the indicated sets.

1) $A \cup D$

2) $A \cap D$

3) $B \cup F$

4) $B \cap F$

5) $C \cup E$

6) $C \cap E$

Solve and **graph** the following compound inequalities.

7) $x + 6 \geq -2$ or $-x - 5 \geq 7$

8)) $x - 8 \geq -2$ and $-x + 1 \geq -7$

9) $-x - 5 \leq 7$ or $5x + 2 \geq 12$

10) $-x - 5 \leq 2$ and $3x + 2 \geq 2$

Solve the following equations and write your answers in **set notation.**

11) $4(x + 2) = -12$

12) $-3(x - 5) = 6$

13) $|x + 7| = -3$

14) $3|x| + 5 = 17$

15) $2|x - 2| - 6 = 10$

16) $-3|x + 4| = -12$

17) $|x + 5| - 8 = -6$

18) $-3|x| - 6 = 15$

Write your solution in **interval notation.**

19) Problem 7

20) Problem 8

21) Problem 9

22) Problem 10

Write your solution in **set notation.**

23) Problem 7

24) Problem 8

25) Problem 9

26) Problem 10

Answer Sheet

1		14	
2		15	
3		16	
4		17	
5		18	
6		19	
7		20	
8		21	
9		22	
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11		24	
12		25	
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