

East Los Angeles College

Department of Mathematics

Math 125

Practice Test 1

Let $A = \{0,2,4,6,8,10\}$ $B = \{1,3,5,7,9\}$ $C = \{a,b,c,d,e,f,g\}$

$D = \{0,1,2,3,4,5\}$ $E = \{a,e,i,o,u\}$ $F = \{0,5,10,15\}$

Determine the following operations with the indicated sets.

1) $A \cup C$

2) $A \cap C$

3) $B \cup D$

4) $B \cap D$

5) $E \cup F$

6) $E \cap F$

Solve and graph the following compound inequalities.

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

8) $x - 6 \geq -2$ and $-x + 5 \geq 7$

9) $2x - 8 > -2$ or $-x + 7 < 11$

10) $2x \leq -24$ and $3x - 4 \geq x + 10$

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

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

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

13) $2x + 8 = -4$

14) $x - 6 = -7$

15) $4(x + 2) = 12$

16) $-3(x - 5) = -6$

17) $|x + 7| = 5$

18) $2|x| + 5 = 17$

19) $4|x - 2| - 8 = 12$

20) $-3|x - 5| = -9$

21) $|x + 5| - 2 = 6$

22) $-3|x| - 6 = 12$

Write your solutions in **interval notation**.

23) Problem 7

24) Problem 8

25) Problem 9

26) Problem 10

27) Problem 11

28) Problem 12

Write your solution in **set notation**.

29) Problem 7

30) Problem 8

31) Problem 9

32) Problem 10

33) Problem 11

34) Problem 12

Your Test 1 will be shorter than this study guide. Please make sure that you create an answer sheet with your own paper like the one I created below. On your test you will fill in the answers on the answer sheet and submit it with your work. If you like, you can view the links below of past Test 1 exams to see what I am talking about.

<http://www.ddjudge.com/assets/fa19-math-125-test-1-solutions.pdf>

<http://www.ddjudge.com/assets/su-19-math-125-test-1-solutions.pdf>

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<http://www.ddjudge.com/assets/winter-2019-math-125-test-1.pdf>

<http://www.ddjudge.com/assets/fall-18-math-125-test-1-solutions.pdf>

Answer Sheet

1		18	
2		19	
3		20	
4		21	
5		22	
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7		24	
8		25	
9		26	
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