

MATH-125 TEST 3 (Chapters 3)  
SPRING 2010

100 points

NAME: \_\_\_\_\_

Show all work on this paper - no scratch paper. No credit will be given for solutions if work is not shown

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Circle T for True, F for False. (3 points each)

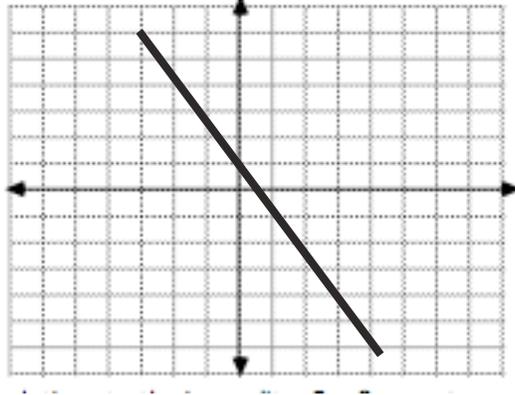
- T    F    (1) The slope of a line parallel to  $2x + y = 7$  is 2.
- T    F    (2) If a line rises from left to right, its slope is positive.
- T    F    (3)  $y=4$  is the equation of a vertical line.
- T    F    (4)  $(-2,3)$  is a solution to  $2x - 3y < 7$ .
- T    F    (5) The slope of a horizontal line is zero.
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Fill in the blanks with the most appropriate answer.        (3 points each)

- (6) The slope of a line perpendicular to  $y = 3x - 1$  is \_\_\_\_\_.
- (7) The ordered pair (\_\_\_\_\_, 3) is a solution to the equation  $11x - 5y = 7$ .
- (8) The y intercept of the line  $5x - 2y = 8$  is \_\_\_\_\_.
- (9) Given an equation in two variables, the graph of the line represents what? \_\_\_\_\_
- (10) The slope of a vertical line is \_\_\_\_\_
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(11) Find the slope for each of the following lines:

- (a)  $-4x + 3y = 7$
- (b) The line containing the points  $(\frac{1}{2}, 3)$  and  $(4, 1)$
- (c) The line graphed below:



(12) Graph the solutions to the inequality  $5x - 2y < 10$ .

(13) Find the equation of each of the following lines. Express your answer in slope intercept form.

(a) The line through (0,5) and having slope 6.

(b) The line through (3,1) and (-4,3)

(c) The line through (-3,2) and (6,2).

(d) The line through (-3,5) and parallel to the line  $2x+5y=7$

(e) The line through (0,8) and perpendicular to  $y = \frac{2}{3}x - 1$

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(14) Graph each of the following lines. Label two points ON your graph.

(a)  $y = 7x$

(b)  $3x - 5y = 6$

(c) The line which passes through the point (1, -2) and has slope  $5/4$ .

(d)  $y = -\frac{1}{5}x - 4$

