SAMPLE TEST 2

QUIZ 5 circled problems have posted solutions → see 10-16-13 notes.
SEC. 3.1.
1. PLOT EACH POINT: (2,1), (3, -2), (-1, 4), (-3, -5), (0, 4), (-2, 0)
2. DO # 28: FIND THE COORDINATES OF A, B, C D AND E.
SEC. 3.2.
3. DETERMINE IF (0, 8) is a solution to $y = 5x + 8$
4. DETERMINE IF (1, -2) is a solution to $3y - 2x = -8$.
5. DETERMINE IF EACH PAIR IS A SOLUTION OF THE EQUATION. Then graph the two pairs to determine another solution. $y = x - 2$; (3, 1), (-2, -4)
BELOW, MAKE A TABLE FOR EACH PROBLEM.
6. GRAPH: $y = x - 1$.
7. GRAPH: $y = 2x - 3$.
8. GRAPH: $x + 2y = 8$ Hint: Set $y = 0$ and find x. Then set $x = 0$ and find y.
9. GRAPH: $2x = 5y$ by first solving for y.
10. GRAPH: $8x - 4y = 12$ by first solving for y.
11. GRAPH: $4x - 2y = 8$ by first solving for y.
12. GRAPH: $x + 5y = 10$ by first solving for y. (See example 7)

SAMPLE TEST 2

circled problems have POSTED solutions

QUIZ 6

SEC. 3.3

1. FIND THE *X AND Y INTERCEPTS*, *THEN GRAPH*: $2x + 5y = 10$

2. FIND THE *X AND Y INTERCEPTS*, *THEN GRAPH:* $6x - 2y = 12$

3. GRAPH: $y = 4$

4. GRAPH: $x = 6$

SEC. 3.4

5. JASMINE BEGAN PROOF READING AT 9:00 AM. SHE STARTED AT THE TOP OF PAGE 93. SHE WORKED UNTIL 2:00 PM THAT DAY AND FINISHED PAGE 195. SHE BILLED THE PUBLISHERS $110 FOR THE DAY'S WORK.
(a) Find the rate of pay in dollars per hour.
(b) Find the average proofreading rate, in number of pages per hour.
(c) Find the rate of pay, in dollars per page.

SEC. 3.5

6. FIND THE SLOPE OF THE LINE CONTAINING THE PAIR OF POINTS. THEN *GRAPH* BY DRAWING A LINE BETWEEN THE TWO POINTS. (1, 4), (3, 6)

7. AGAIN, PLEASE FIND THE SLOPE OF THE LINE CONTAINING THE PAIR OF POINTS. THEN *GRAPH* BY DRAWING A LINE BETWEEN THE TWO POINTS. (0, 5), (-3, 0)

FOR THE NEXT TWO PROBLEMS: FIND THE SLOPE OF EACH LINE WHOSE EQUATION IS GIVEN. IF THE SLOPE IS UNDEFINED, THEN STATE THIS. IN EACH CASE, *GRAPH* THE LINE.

8. $y = -5$

9. $x = -4$

10. *CAPITAL RAPIDS* DROPS 28 FT OVER A HORIZONTAL DISTANCE OF 1080 FT. WHAT IS THE SLOPE OF THE LAND? BE CAREFUL ABOUT THE SIGN OF YOUR ANSWER.

SEC. 3.6

11. DRAW THE LINE THAT HAS THE GIVEN SLOPE AND Y- INTERCEPT.
Slope 3/5; y-intercept (0, -1)

12. DRAW THE LINE THAT HAS THE GIVEN SLOPE AND Y- INTERCEPT.
Slope -4/5; y-intercept (0, 6)

13. FIND THE SLOPE AND Y-INTERCEPT OF THE LINE WHOSE EQUATION IS GIVEN: $y = -(3/8)x + 4$

14. FIND THE SLOPE AND Y-INTERCEPT OF THE LINE WHOSE EQUATION IS GIVEN: $3x + 4y = 12$

15. FIND THE SLOPE-INTERCEPT EQUATION ($y = mx + b$) FOR THE LINE WITH THE INDICATED SLOPE AND Y-INTERCEPT : Slope -5/7 ; y-intercept (0,4)

SAMPLE TEST 2

16. GRAPH: $y = -(2/3)x - 3$

17. DETERMINE WHETHER THIS PAIR OF LINES REPRESENTS PARALLEL LINES: $y = -(1/3)x - 2$ and $y = -(2/6)x + 5$

SEC. 3.7

18. WRITE A POINT-SLOPE EQUATION FOR THE LINE WITH THE GIVEN SLOPE THAT CONTAINS THE GIVEN POINT: $m = 7/2$; (-3, 4)

19. WRITE THE SLOPE-INTERCEPT ($y = mx + b$) FOR THE LINE WITH THE GIVEN SLOPE THAT CONTAINS THE GIVEN POINT: $m = 3$; (6,2)

20. GRAPH: $y - 2 = (1/2)(x - 1)$

SEC. 7.1

21. DETERMINE WHETHER EACH ORDERED PAIR IS A SOLUTION OF THE SYSTEM OF EQUATIONS.
(1, 4); $5x - 2y = -3$
$7x - 3y = -5$
HINT: SEE EXAMPLE 1

22. SOLVE THE SYSTEM OF EQUATIONS BY GRAPHING. IF THERE IS NO SOLUTION (PARALLEL LINES) OR AN INFINITE NUMBER OF SOLUTIONS (SAME LINE) , STATE THIS.
$y = (1/3)x + 1$
$y = (1/3)x - 2$

SEC. 7.2

SOLVE THE NEXT PROBLEMS USING THE SUBSTITUTION METHOD:

23.
$x + y = 5$
$x = y + 1$

24.
$x = y - 6$
$3x + 2y = 2$

25.
$x - y = 2$
$x + y = -4$

26. TWO ANGLES ARE SUPPLEMENTARY. ONE ANGLE IS 8 DEGREES LESS THAN THREE TIMES THE OTHER. FIND THE MEASURE OF EACH ANGLE.
HINT: SEE EXAMPLE 5.

SAMPLE TEST 2

QUIZ 7 HINT: ALWAYS SEE SEC. EXAMPLES/NOTES

SEC. 7.3 ELIMINATION METHODS; *ADD OR SUBTRACT MULTIPLES OF EQUATIONS*

1.
$x + y = 5$
$x - y = 3$
HINT: SEE SEC. EXAMPLES/NOTES

2.
$x - y = 3$
$2x - 3y = -1$ **HINT: MULTIPLY FIRST EQUATION BY 2 , 3 , -2 OR -3. THEN COMBINE WITH SECOND EQUATION.**

SEC. 7.4 SOLVE THE NEXT PROBLEMS USING THE SUBSTITUTION OR ELIMINATION METHOD:

3. Sunflower seed is worth $1.00 per pound and rolled oats worth $1.35 per pound. How much of each (in pounds---do no forget units) WOULD YOU USE TO MAKE 50 POUNDS OF A MIXTURE WORTH $1.14 PER POUND?

4. DR. ZEKE'S COUGH SYRUP IS 2 % ALCOHOL . VIBRABRITE COUGH SYRUP IS 5 % ALCOHOL. HOW MUCH OF EACH TYPE SHOULD BE USED IN ORDER TO MAKE AN 80-OZ BATCH OF COUGH SYRUP THAT IS 3% ALCOHOL?

SEC. 7.5 *GRAPH SHOWING SHADED REGIONS* IN X-Y PLANE

5. GRAPH $y > x - 3$. USE TEST POINTS

6. GRAPH $x + y > 5$. USE TEST POINTS

7. GRAPH $y < 4$

8. GRAPH $x < -4$

9. GRAPH $x > 0$

10. GRAPH $y < 0$

11. GRAPH $y < x$. USE TEST POINTS

12. GRAPH $y < x + 1$. USE TEST POINTS

Partial solutions quiz 6

(1.)

$2x + 5y = 10$

$x = 0 \rightarrow 5y = 10$

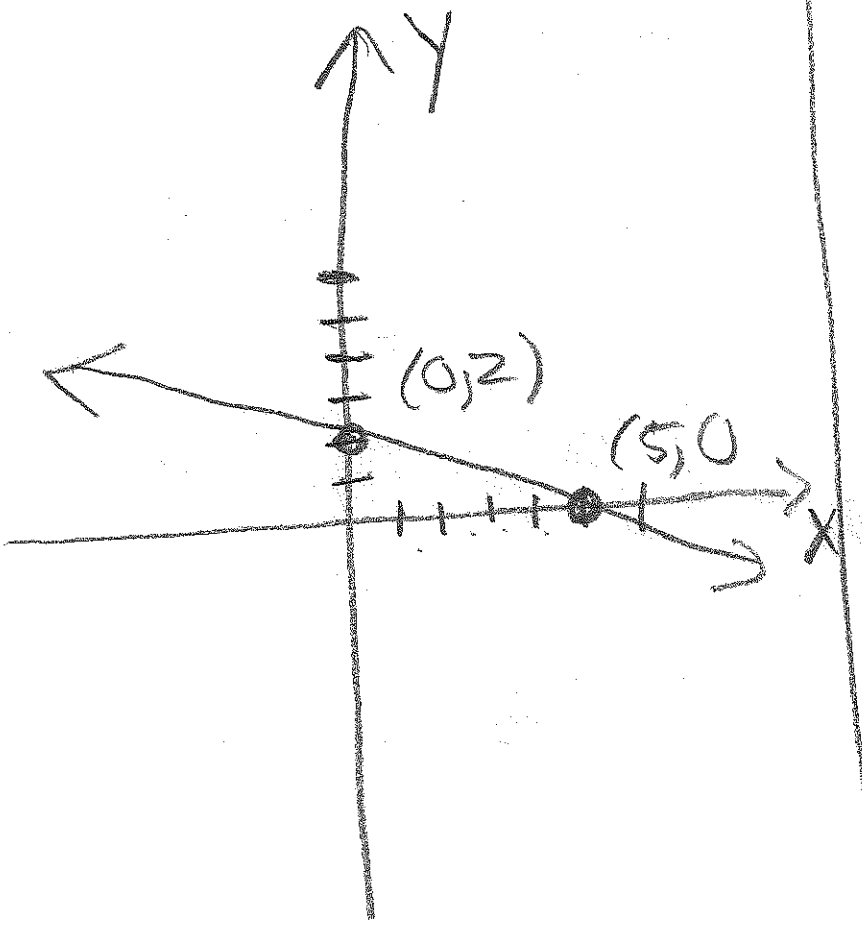
$y = 2$

$(0, 2)$

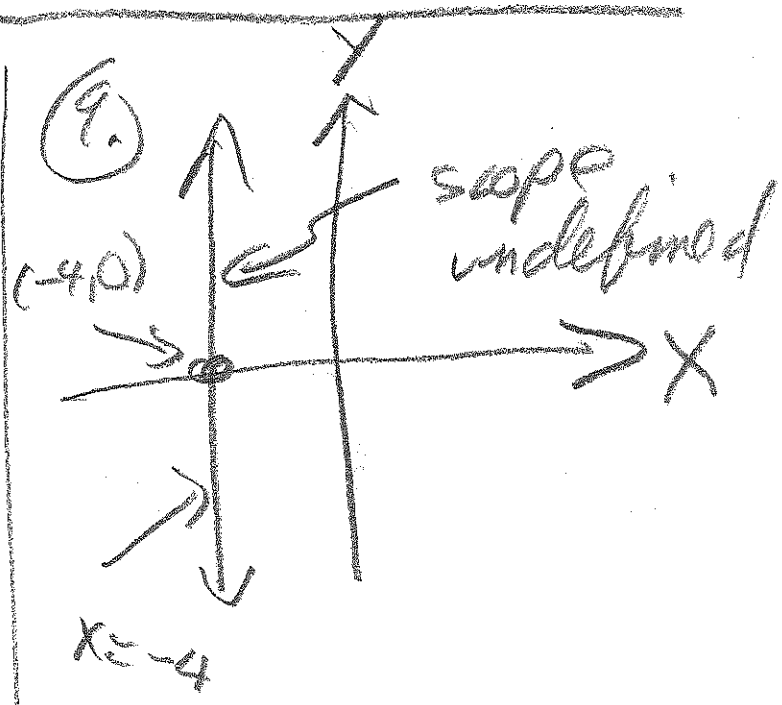
$y = 0 \rightarrow 2x = 10$

$x = 5$

$(5, 0)$



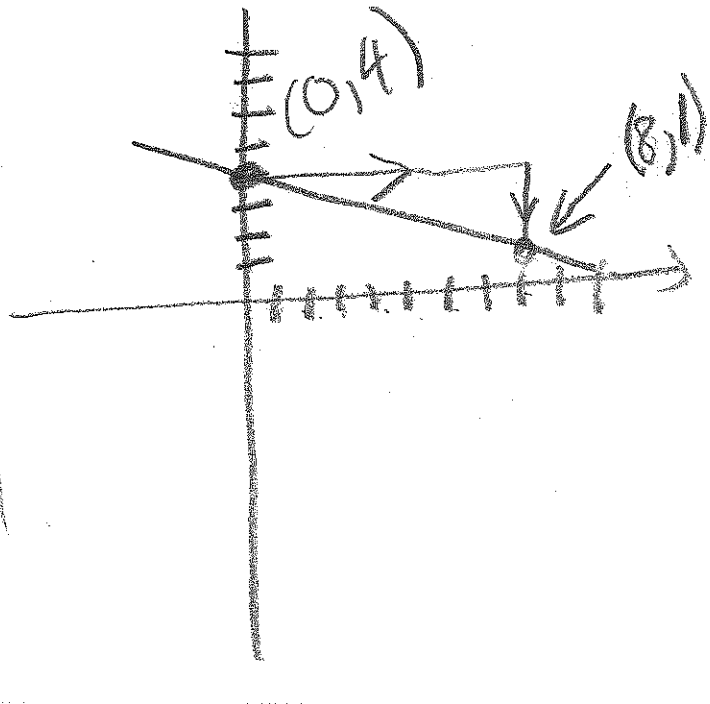
(2.)



(3.) $y = -\frac{3}{8}x + 4$

$\text{slope} = -\frac{3}{8} = \frac{\text{rise}}{\text{run}}$

y-intercept = (0,4)



(18.)

$$y-4=\frac{2}{2}(x+3)$$

(23.)

$x+y=5$ (A)

$x=y+1$ (B)

$y+1+y=5$

$2y+1=5$

$2y=4$

$y=2$

$x=2+1=3$

$(3,2)$