Page 479 #1-16 every 3rd, 20-24 even, 25-29 all

Word Problem Practice For Chapter 7 TEST

1. The length of a rectangle is 5 feet less than 3 times the width. The perimeter is 22 feet. What are the dimensions of the rectangle?

2. The difference of the ages of Max and his dad is 22. His dad is 2 years more than three times Max's age. How old are Max and his dad?

3. A hairdresser has a bottle of 10% blonde peroxide solution and 4% brunette peroxide solution. She needs 200 ounces of a 6.25% peroxide solution. How many ounces of blonde and brunette peroxide solution will she need?

4. A fruit salad contains *x* cups of apples and y cups of bananas. There are at least 6 cups apples and bananas total in the salad. However, you can have at most 1/3 the amount of cups be bananas. Set up a system of inequalities and graph on the coordinate plane to find possible solutions.

Word Problems

1) $l = 3w - 5$
$p = 2l + 2w$

$22 = 2(3w-5) + 2w$
$22 = 6w - 10 + 2w$
$32 = 8w$
$4 = w$

$l = 3(4) - 5$
$l = 12 - 5$
$l = 7$

$w = 4ft$
$l = 7ft$

2) $D - 22 = M$
$D = 3M + 2$

$D = 3(D-22) + 2$
$D = 3D - 66 + 2$
$-2D = -64$
$D = 32$

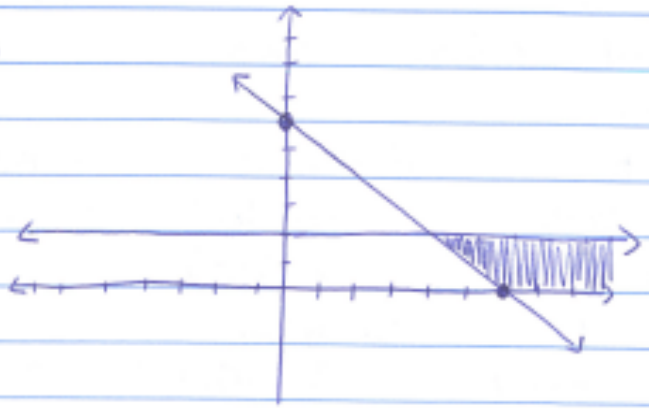
$M = 10$

3) $x + y = 200$
$.1x + .04y = .0625(200)$
$.1(200-y) + .04y = 12.5$
$20 - .1y + .04y = 12.5$
$-0.06y = -7.5$
$y = 125$

$x = 200 - y$

$x = 200 - 125$
$x = 75$ at 10%
$y = 125$ at 4%

4) $x + y \geq 6$
$y \leq 2$
$y \geq 0$



p.479 Chapter Review #1-16 every 3rd
20-24 even
25-29 All

1) graph $y = 3x + 6$ $y = -x + 2$ $(-1, 3)$

4) graph $y = \frac{6}{4}x - 5$ $y = -\frac{1}{2}x + 2$ $(4, 0)$

7) $-4x + (5x - 7) = -1$ $y = 5(6) - 7$
$-4x + 5x - 7 = -1$ $y = 30 - 7$ $(6, 23)$
$x = 6$ $y = 23$

10) $y = -15x + 70$ $y = -15(4) + 70$
$3x - 2(-15x + 70) = -8$ $y = -60 + 70$
$3x + 30x - 140 = -8$ $y = 10$
$33x = 132$
$x = 4$ $(4, 10)$

13) $8x + 3y = -9$ $8x + 3(5) = -9$
$-8x + y = 29$ $8x + 15 = -9$
$4y = 20$ $8x = -24$
$y = 5$ $x = -3$ $(-3, 5)$

16) $3x + 2y = -5$ $3 - y = 10$
$2x - 2y = 20$ $-y = 7$
$5x = 15$ $y = -7$
$x = 3$ $(3, -7)$

20) $y = 4x + 4$ // Lines, no solution
$y = 4x + 1$

22) $6x - 7y = 5$ $-12x + 14y = 10$ // Lines,
$-7y = -6x + 5$ $14y = 12x + 10$ No Solution
$y = \frac{6}{7}x - \frac{5}{7}$ $y = \frac{6}{7}x + \frac{5}{7}$

24) $10x - 2y = 14$ $15x - 3y = 21$ Same Line,
$-2y = -10x + 14$ $-3y = -15x + 21$ Infinitely Many
$y = 5x - 7$ $y = 5x - 7$ Solutions