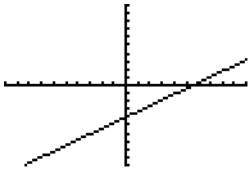
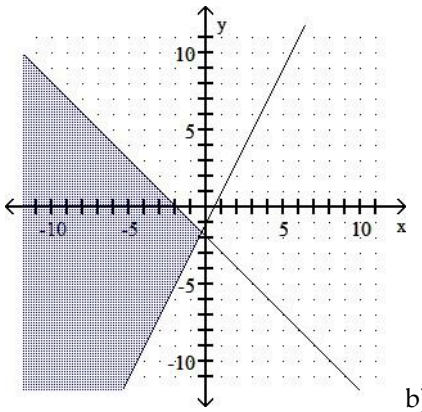
Algebraic Concepts Review for Test 2 Answers Luczak

1. a. vertical line $x=5$ b, horizontal line $y=5$
2. $k=7$
3. $y=2x+4$
4. a. $\left(\frac{28}{5},0\right)$ b. $(0,-4)$ c. $m=\frac{5}{7}$ d. $y=-\frac{7}{5}x-\frac{23}{5}$; $7x+5y=-23$ e. $y=\frac{5}{7}x-\frac{47}{7}$;

   $5x-7y=47$ f. 
5. a. $y=-5$ b. $y=\frac{6}{5}x+\frac{46}{5}$ c. $y=-\frac{5}{4}x+19$ d. $x=-3$ e. $y=\frac{2}{3}x+\frac{9}{10}$
6. No solution
7. $(1,1)$
8. $\left(\frac{10}{3},-\frac{4}{9}\right)$
9. $\left(\frac{192}{25},\frac{144}{25}\right)$
10. $(2,-1,3)$
11. No solution
12. let $x=$gallons of 10% solution and $y=$gallons of 7% solution $\begin{matrix} x+y=30 \\ .1x+.07y=2.4 \end{matrix}$ 10 gallons of the 10% solution and 20 gallons of the 7% solution.
13. Let A be the number of adults and S be the number of Senior Citizens.

    $\begin{matrix} A+S=559 \\ 21A+10S=7493 \end{matrix}$ solving we find S=386

14.

a) 

b)