

Warm Up

3/21/19

Complete # 3 & 4 from yesterday's word  
problem  
examples sheet

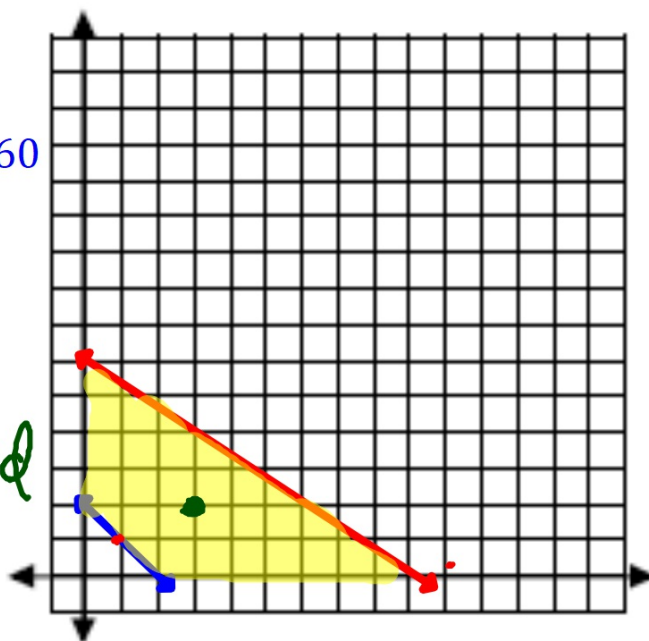
3. ~~The "We Sell CDs" website plans to purchase ads in a local newspaper to advertise their site. Their operating budget will allow them to spend at most \$3000 on this advertising adventure. An ad will cost \$30 to appear in the weekday paper and \$50 to appear in the weekend edition. They plan to run at least 20 ads.  $x$ =weekday  $y$ =weekend~~

a. Write and graph a system of linear inequalities:

$$\begin{aligned} x + y &\geq 20 & y &\geq -x + 20 \\ 30x + 50y &\leq 3000 & y &\leq -\frac{3}{5}x + 60 \end{aligned}$$

b. Write two possible solutions:

- i. 10 wkdy, 10 wkend
- ii. 30 wkdy, 20 wkend



4. ~~Mary knits scarves and sweaters to sell.~~ Scarves take 2 hours to knit and sweaters take 10 hours. Mary would like to spend no more than 40 hours per week knitting and knit at least 5 items per week.  $x = \text{scarves} \leq y = \text{sweaters}$

a. Write and graph a system of linear inequalities:

$$\begin{aligned} x + y &\geq 5 & y &\geq -x + 5 \\ 2x + 10y &\leq 40 & y &\leq -1/5x + 4 \end{aligned}$$

b. Write two possible solutions:

- i. 5 Scarves, 2 swt.
- ii. 2 Scarves, 3 swt

