1. Mr. Marjoram is considering the idea that making money is more important than using the machines, but is unwilling to buy any more time on the machines. He currently has 1100 minutes of sewing time left, 1400 minutes of stuffing time left, and 350 minutes of trimming time left. In the table below, "8 min per" means it takes 8 minutes of trimming machine time per dog since it is in the "trim" row and the "dog" column.

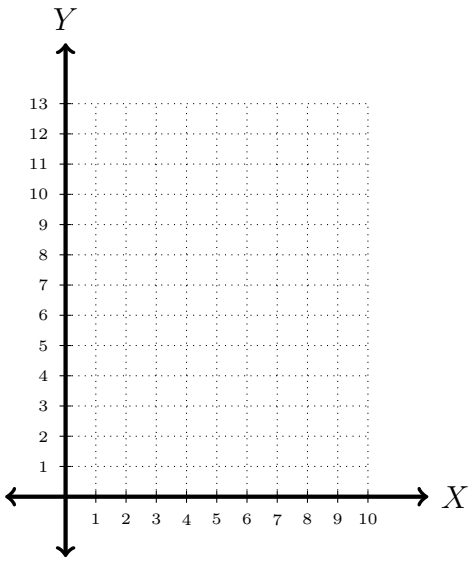
	Panda	Dog	Bird	Rented
Sewing	15 min per	20 min per	25 min per	1100 minutes
Stuff	30 min per	35 min per	25 min per	1400 minutes
Trim	12 min per	8 min per	5 min per	350 minutes
Profit	\$10 per	\$15 per	\$12 per	

His old adviser advised to: *Make 10 pandas, 10 dogs, and 30 birds. You'll use up all the time on all three machines, and make \$610 in profit.*

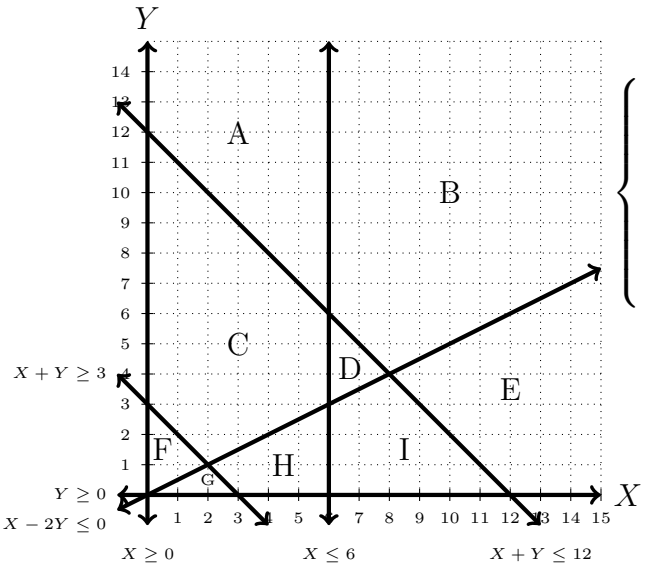
What is your recommendation to Mr. Marjoram? Can he do better than \$610?

Make _____pandas, _____dogs, _____birds. You'll have _____min left on the sewing machine, _____min left on the stuffing machine, and _____min left on the trimming machine. You'll make \$_____in profit.

2. Graph the feasible region for the GnS company: $200X + 100Y \leq 1000$



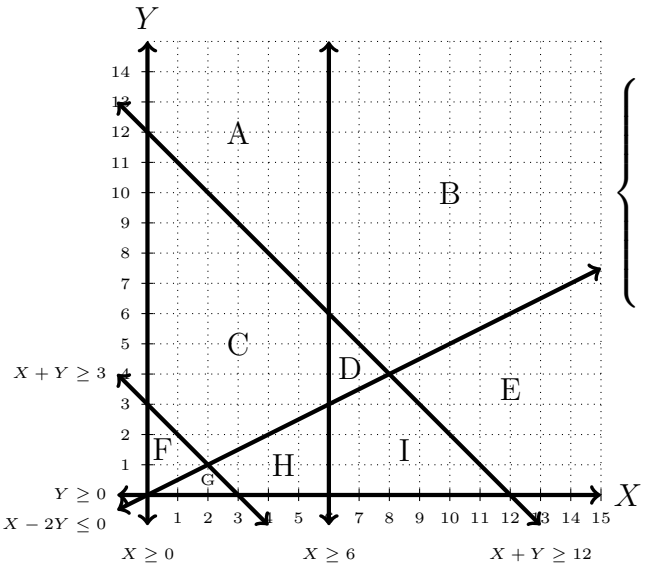
3. Which region is the feasible region? List its corners.
How do the number of edges versus number of corners compare?



$$\begin{cases} x + y \leq 12 \\ x - 2y \leq 0 \\ x + y \geq 3 \\ x \leq 6 \\ x \geq 0 \\ y \geq 0 \end{cases}$$

X	Y

4. Which region is the feasible region? List its corners.
How do the number of edges versus number of corners compare?



$$\begin{cases} x + y \geq 12 \\ x - 2y \leq 0 \\ x + y \geq 3 \\ x \geq 6 \\ x \geq 0 \\ y \geq 0 \end{cases}$$

X	Y