Graph this system of inequalities. Shade the solution region a different color than any of the inequalities.

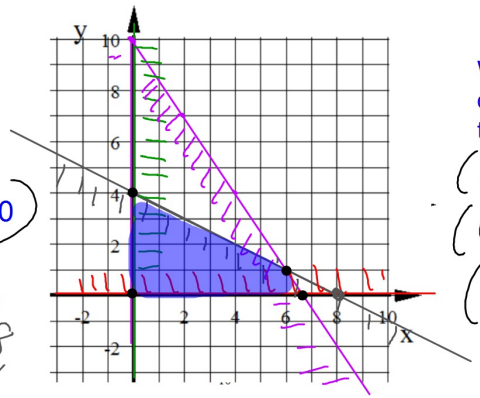
$y \geq 0$

$x \geq 0$

$y \leq \frac{-3}{2}x + 10$

$3x+6y \leq 24$

x-int = 8
y-int = 4



What are the coordinates of the four corners of the solution region?

(0,4) (20/3, 0)
(0,0)
(6,1)

Write an equation to model this statement.

You can sell a painting for $45 each and a sculpture for $70 each.

$45p + 70s = T$

P = # paintings
S = # sculptures
T = TOTAL $ made

I'm going to the store to buy some CD's and some DVD's. DVD's cost $12 each and CD's cost $8 each.

I can spend no ~~more than $48~~ at the store.

C = # CD's
D = # DVD's

Define variables and write three inequalities to represent all the constraints in this situation.

Constraint: Any restriction or limit on a variable.

$8C + 12D \leq 48$ $C \geq 0$ $D \geq 0$

Find at least 5 combinations of CD's and/or DVD's that meet all of these constraints.

some possible answers are in the table to the right.

C	D	$
0	0	0
1	1	20
2	2	40
1	2	32
2	1	28
6	0	48
0	4	48

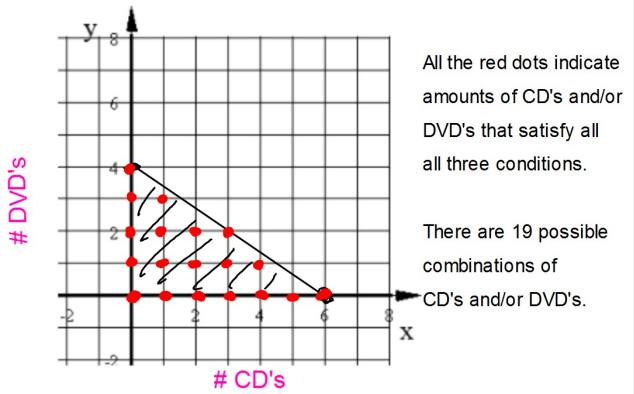
C = # CD's

D = # DVD's

$C \geq 0$
$D \geq 0$
} 1ST QUAD

$8C + 12D \leq 48$

C-int = 6
D-int = 4



All the red dots indicate amounts of CD's and/or DVD's that satisfy all all three conditions.

There are 19 possible combinations of CD's and/or DVD's.