

Fonction de profit:

# B.-N. :  $x$

# DINO :  $y$

$$p(x,y) = 40x + 35y$$

Contraintes:

	M	P	E
B.-N.	3	24	4
DINO	10	15	5
	300	360	180

$$\left. \begin{array}{l} x, y \geq 0 \\ 3x + 10y \leq 300 \\ 24x + 15y \leq 360 \\ 4x + 5y \leq 180 \end{array} \right\}$$

$$3x + 10y = 300 \Leftrightarrow y = -\frac{3}{10}x + 30$$

$$24x + 15y = 960 \Leftrightarrow y = -\frac{8}{5}x + 64$$

$$4x + 5y = 180 \Leftrightarrow y = -\frac{4}{5}x + 36$$

$$40x + 35y = 0$$

$$y = -\frac{40}{35}x = -\frac{8}{7}x$$

50

20

10

(0;0)

10

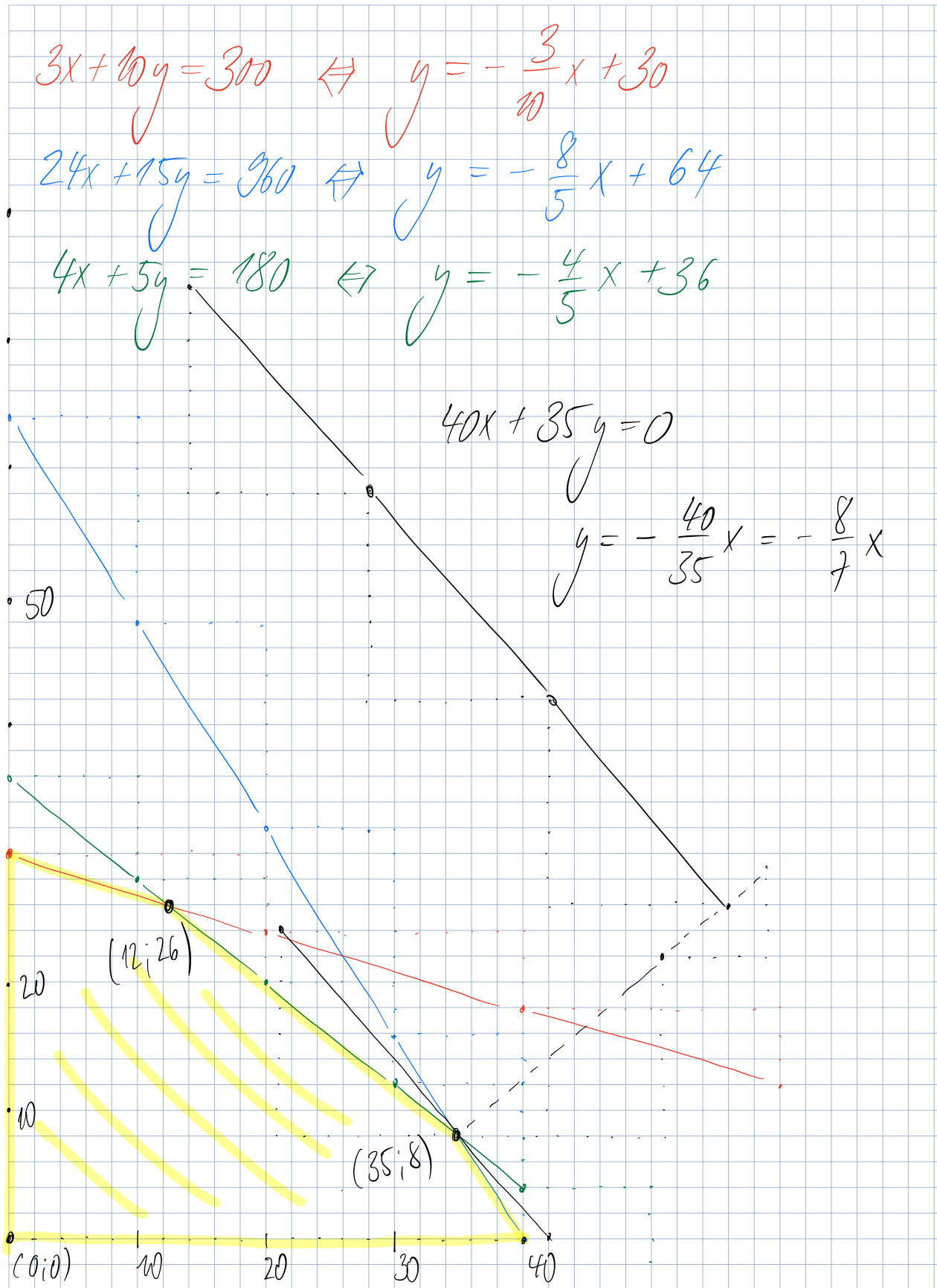
20

30

40

(12; 26)

(35; 8)



R fait fabriquer 35 Blondes-Neiges et  
8 Dinos.

$$-\frac{8}{5}x + 64 = -\frac{4}{5}x + 36$$

$$28 = \frac{4}{5}x$$

$$x = \frac{140}{4} = 35 \quad / \quad y = -\frac{4}{5}35 + 36 \\ = -28 + 36 = 8$$

Vérification  
algébrique