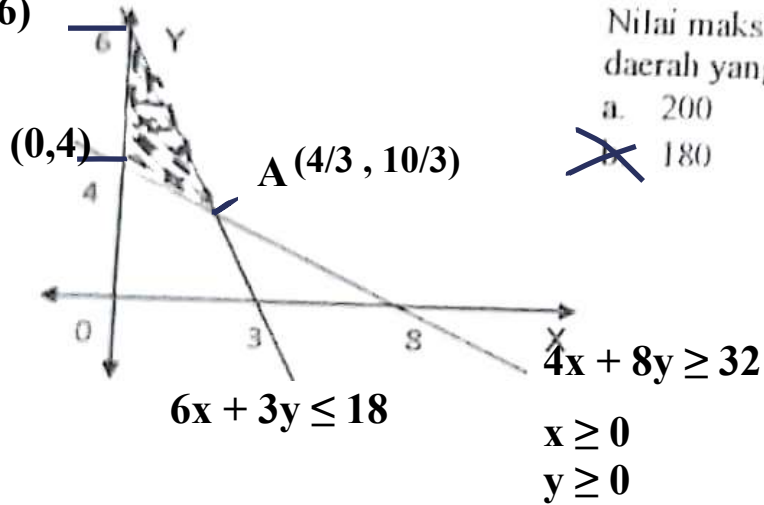


4. Perhatikan gambar berikut!

(0,6)



Mencari titik potong pada A:

Eliminasi

$$\begin{array}{rcl} 6x + 3y = 18 & \times 4 & 24x + 12y = 72 \\ 4x + 8y = 32 & \times 6 & 24x + 48y = 192 \\ \hline & & -36y = -120 \\ & & y = \frac{-120}{-36} \\ & & y = \frac{10}{3} \end{array}$$

Substitusi

$$\begin{array}{rcl} 6x + 3y & = & 18 \\ 6x + 3(10/3) & = & 18 \\ 6x + 10 & = & 18 \\ 6x & = & 18 - 10 \\ 6x & = & 8 \\ x & = & \frac{8}{6} \\ & = & \frac{4}{3} \end{array}$$

Mencari nilai maksimum pada

$$f(x,y) = 60x + 30y$$

$$\begin{aligned} f(4/3, 10/3) &= 60(4/3) + 30(10/3) \\ &= 80 + 100 \\ &= 180 \end{aligned}$$

$$\begin{aligned} f(0,4) &= 60(0) + 30(4) \\ &= 0 + 120 \\ &= 120 \text{ NILAI MINIMUM} \end{aligned}$$

$$\begin{aligned} f(0,6) &= 60(0) + 30(6) \\ &= 0 + 180 \\ &= 180 \end{aligned}$$