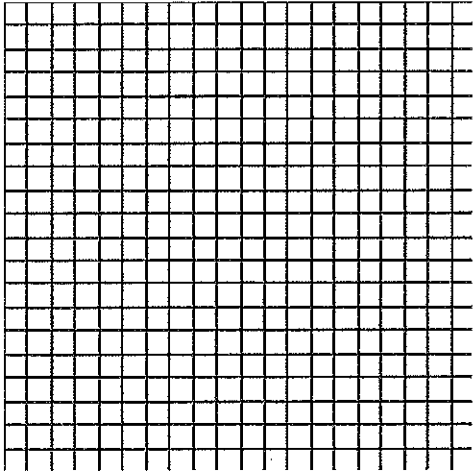


3. A seafood restaurant owner orders at least 50 fish. He cannot use more than 30 amberjack or more than 35 flounder. Amberjack costs \$4 each and flounder costs \$3 each. How many of each fish should he use to minimize his cost?



$$x = \text{amberjack}$$

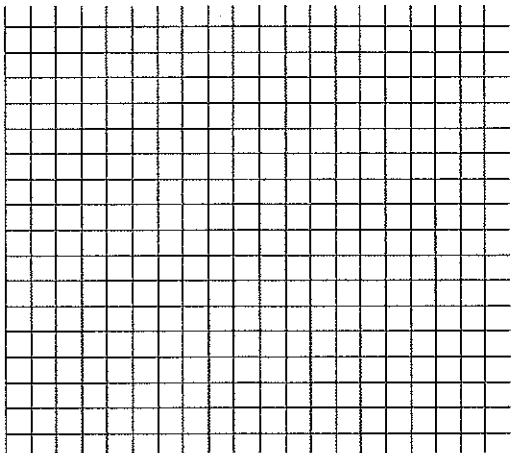
$$y = \text{flounder}$$

$$\begin{cases} x \leq 30 \\ y \leq 35 \\ x + y \geq 50 \end{cases}$$

$$C = 4x + 3y$$

$$\boxed{15 \text{ amberjack and } 35 \text{ flounder}}$$

4. Juan makes two types of wood clocks to sell at local stores. It takes him 2 hours to assemble a pine clock, which requires 1 oz of varnish. It takes 2 hours to assemble an oak clock, which takes 4 oz. of varnish. Juan has 16 oz. of varnish in stock, and can work 20 hours. If he makes \$3 profit on each pine clock and \$4 on each oak clock, how many of each type should he make to maximize his profits?



$$x = \text{pine clocks}$$

$$y = \text{oak clocks}$$

$$\begin{cases} x + 4y \leq 16 \\ 2x + 2y \leq 20 \end{cases}$$

$$P = 3x + 4y$$

$$\boxed{8 \text{ pine clocks and } 2 \text{ oak clocks}}$$