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$$\begin{array}{l} 72) \quad 2a + 3b = 13 \\ \quad \quad 3a + 2b = 12 \end{array} \left. \vphantom{\begin{array}{l} 2a + 3b = 13 \\ 3a + 2b = 12 \end{array}} \right\} \begin{array}{l} 6a + 9b = 39 \\ 6a + 4b = 24 \end{array} \left. \vphantom{\begin{array}{l} 6a + 9b = 39 \\ 6a + 4b = 24 \end{array}} \right\} \begin{array}{l} 6a + 9b = 39 \\ -6a - 4b = -24 \\ \hline 5b = 15 \end{array}$$

$$b = \frac{15}{5} = 3 \quad \boxed{b = 3}$$

$$2a + 3b = 13 \quad // \quad 2a = 13 - 3b = 13 - (3 \cdot 3) = 13 - 9 = 4$$

$$2a = 4 \quad // \quad a = \frac{4}{2} = 2 \quad \boxed{a = 2}$$

$$\begin{array}{l} 76) \quad j + q = 18 \\ \quad \quad 2'80 \cdot j + 2'50 \cdot q = 48 \end{array} \left. \vphantom{\begin{array}{l} j + q = 18 \\ 2'80 \cdot j + 2'50 \cdot q = 48 \end{array}} \right\} j = 18 - q$$

$$2'80(18 - q) + 2'50q = 48 \quad //$$

$$50'40 - 2'80q + 2'50q = 48 \quad // \quad -0'30q = 48 - 50'40$$

$$-0'30q = -2'40 \quad // \quad q = \frac{-2'40}{-0'30} = 8 \quad \boxed{q = 8}$$

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$$j + q = 18 \quad // \quad j = 18 - q = 18 - 8 = 10 \quad \boxed{j = 10}$$

79) $x = \text{discos Jose'}$
 $y = \text{discos Irene's}$

$$\left. \begin{array}{l} x - 10 = y + 10 \\ x + 10 = 2y \end{array} \right\} \begin{array}{l} x - y = 20 \\ x - 2y = -10 \end{array} \left\} \begin{array}{l} x - y = 20 \\ -x + 2y = 10 \end{array} \right.$$

$$/ \quad \boxed{y = 30}$$

$$x - y = 20 // \quad x = 20 + y = 20 + 30 = 50 // \quad \boxed{x = 50}$$

81)

$$\left. \begin{array}{l} c + p = 60 \\ 0'9 \cdot c + 0'8 \cdot p = 50'15 \end{array} \right\} \quad p = 60 - c$$

$$0'9c + 0'8(60 - c) = 50'15$$

$$0'9c + 48 - 0'8c = 50'15 // \quad 0'1c = 50'15 - 48 = 2'15$$

$$0'1c = 2'15 // \quad c = \frac{2'15}{0'1} = 21'5 \text{ €} // \quad \boxed{c = 21'5 \text{ €}}$$

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$$p = 60 - c = 60 - 21'5 = 38'50 // \quad \boxed{p = 38'50 \text{ €}}$$

83)

1er Sistema (tema 4)

	Precio	Cantidad
P1	12 €/l	x
P2	15 €/l	50-x
total	$\frac{12 \cdot x + 15 \cdot (50-x)}{50} = 13$	50

$$13 = \frac{12 \cdot x + 15(50-x)}{50} \quad // \quad 13 \cdot 50 = 12x + 750 - 15x$$

$$15x - 12x = 750 - 650 \quad // \quad 3x = 100 \quad // \quad \boxed{x = \frac{100}{3}}$$

 // =

$$P_2 = 50 - x = 50 - \frac{100}{3} = \frac{150}{3} - \frac{100}{3} = \frac{50}{3}$$

$$\boxed{y = \frac{50}{3}}$$

2º Sistema (Tema 5)

Cantidad P 12 €/l = X

Cantidad P 15 €/l = Y

$$\left. \begin{array}{l} X + Y = 50 \\ 12X + 15Y = 50 \cdot 13 \end{array} \right\} X = 50 - Y$$

$$12(50 - Y) + 15Y = 650 \quad // \quad 600 - 12Y + 15Y = 650$$

$$3Y = 650 - 600 = 50 \quad // \quad 3Y = 50 \quad // \quad \boxed{Y = \frac{50}{3}}$$

$$X = 50 - Y = 50 - \frac{50}{3} = \frac{150}{3} - \frac{50}{3} = \frac{100}{3} \quad // \quad \boxed{X = \frac{100}{3}}$$