

$$1 \quad a) \quad 5 - \frac{x}{2} = 3x - 16$$

$$\frac{10}{2} - \frac{x}{2} = \frac{6x}{2} - \frac{32}{2}$$

$$10 - x = 6x - 32$$

$$-x - 6x = -32 - 10$$

$$-7x = -42$$

$$x = \frac{-42}{-7}$$

$$\boxed{x = 6}$$

$$b) \quad x - \frac{x}{3} = 2x - \frac{2}{3}$$

$$\frac{3x}{3} - \frac{x}{3} = \frac{6x}{3} - \frac{2}{3}$$

$$3x - x = 6x - 2$$

$$3x - x - 6x = -2$$

$$-4x = -2$$

$$x = \frac{-2}{-4}$$

$$\boxed{x = \frac{1}{2}}$$

$$c) \quad \frac{x}{2} - \frac{x}{6} = \frac{4}{3}$$

$$\frac{3x}{6} - \frac{x}{6} = \frac{8}{6}$$

$$3x - x = 8$$

$$2x = 8$$

$$x = \frac{8}{2}$$

$$\boxed{x = 4}$$

$$d) \quad \frac{x}{5} - \frac{x}{8} = \frac{3}{4}$$

$$\frac{8x}{40} - \frac{5x}{40} = \frac{30}{40}$$

$$8x - 5x = 30$$

$$3x = 30$$

$$x = \frac{30}{3}$$

$$\boxed{x = 10}$$

$$e) \quad x - \frac{1}{2} = \frac{5x}{8} - \frac{3}{4}$$

$$\frac{8x}{8} - \frac{4}{8} = \frac{5x}{8} - \frac{6}{8}$$

$$8x - 4 = 5x - 6$$

$$8x - 5x = -6 + 4$$

$$3x = -2$$

$$\boxed{x = \frac{-2}{3}}$$

$$f) \quad \frac{x}{2} + \frac{1}{5} - \frac{x}{6} = \frac{3x}{10} + \frac{8}{15}$$

$$\frac{15x}{30} + \frac{6}{30} - \frac{5x}{30} = \frac{9x}{30} + \frac{16}{30}$$

$$15x + 6 - 5x = 9x + 16$$

$$15x - 5x - 9x = 16 - 6$$

$$\boxed{x = 10}$$

2.-  $x =$  precio una camisa

$y =$  precio un pantalón

$$\begin{cases} 3x + 2y = 126 \\ y = 2x \end{cases}$$

$$\Rightarrow$$

↓  
sustitución

$$3x + 2 \cdot (2x) = 126 \Rightarrow 3x + 4x = 126$$

$$\Rightarrow 7x = 126 \Rightarrow \boxed{x = 18 \text{ €}}$$

cuesta una camisa

$$y = 2x = 2 \cdot 18 = \boxed{36 \text{ €}}$$

cuesta un pantalón