

Să se rezolve în R ecuațiile:

$$1. \quad (4x - 3) \cdot (-3) = 6x + 23$$

$$2. \quad \frac{x-1}{3} + \frac{1-4x}{2} = \frac{7x}{6}$$

$$3. \quad 2x(2x - 5) = (2x + 3)(2x - 3)$$

$$4. \quad (5x + 1)^2 = (3x)^2 + (4x + 3)^2$$

$$5. \quad (\sqrt{3}x + 3)^2 = (1 - \sqrt{3}x)^2$$

$$6. \quad (\sqrt{7}x - 1)^2 = (\sqrt{7}x - \sqrt{6})(\sqrt{7}x + \sqrt{6})$$

$$7. \quad \frac{x}{1 \cdot 2} + \frac{x}{2 \cdot 3} + \frac{x}{3 \cdot 4} + \dots + \frac{x}{99 \cdot 100} = \frac{99}{50}$$

REZOLVARE:

$$1. \quad (4x - 3) \cdot (-3) = 6x + 23$$

$$-12x + 9 = 6x + 23$$

$$-12x - 6x = 23 - 9$$

$$-18x = 14$$

$$x = \frac{14}{-18} = -\frac{14}{18} = -\frac{7}{9} \quad S = \left\{ -\frac{7}{9} \right\}$$

$$2. \quad \frac{x-1}{3} + \frac{1-4x}{2} = \frac{7x}{6} \Rightarrow \frac{2x-2+3-12x}{6} = \frac{7x}{6} \quad / \cdot 6$$

$$\Rightarrow 2x - 2 + 3 - 12x = 7x \Rightarrow -10x + 1 = 7x \Rightarrow$$

$$\Rightarrow -10x - 7x = -1$$

$$-17x = -1 \Rightarrow x = \frac{-1}{-17} \Rightarrow x = \frac{1}{17}$$

$$S = \left\{ \frac{1}{17} \right\}$$