

## Lösungen

$$1. \quad \frac{z-1}{4z+2} = \frac{3}{14} \quad | \cdot 14 \cdot (2z+1) \quad G = \mathbb{R} \setminus \{-0.5\}$$

$$7z-7 = 6z+3 \quad | -6z+7 \\ z = 10$$

$$2. \quad \frac{8}{x-3} = 4 \quad | \cdot (x-3) \quad G = \mathbb{R} \setminus \{3\}$$

$$8 = 4x - 12 \quad | +12 \\ 20 = 4x \quad | \div 4 \\ x = 5$$

$$3. \quad \frac{9x}{25-x} = 6 \quad | \cdot (25-x) \quad G = \mathbb{R} \setminus \{25\}$$

$$9x = 150 - 6x \quad | +6x \\ 15x = 150 \quad | \div 15 \\ x = 10$$

$$4. \quad \frac{2x}{x+1} + \frac{3}{2x} = 2 - \frac{1}{x} \quad | \cdot 2x \cdot (x+1) \quad G = \mathbb{R} \setminus \{0; -1\}$$

$$\cancel{4x^2} + 3x + 3 = \cancel{4x^2} + 4x - 2x - 2 \quad | -4x^2 - 2x - 3 \\ x = -5$$