

## Bruchgleichungen

$$1) \frac{-1x + 3}{2} = \frac{-2x}{3}$$

$$2) \frac{3}{3x + 2} = \frac{2}{-2x - 2}$$

$$3) \frac{x^2 + 3x - 1}{x + 2} = \frac{2x + 1}{2}$$

## Lösung

$$\frac{-1x + 3}{2} = \frac{-2x}{3} \quad | \cdot 2$$

$$-1x + 3 = \frac{-4x}{3} \quad | \cdot 3$$

$$-3x + 9 = -4x \quad | + 4x$$

$$1x + 9 = 0 \quad | - 9$$

$$1x = -9 \quad | : 1$$

$$x = -9$$

$$\frac{3}{3x + 2} = \frac{2}{-2x - 2} \quad | \cdot (3x + 2)$$

$$3 = \frac{6x + 4}{-2x - 2} \quad | \cdot (-2x - 2)$$

$$-6x - 6 = 6x + 4 \quad | + 6$$

$$-6x = 6x + 10 \quad | - 6x$$

$$-12x = 10 \quad | : (-12)$$

$$x = -0,83$$

$$\frac{x^2 + 3x - 1}{x + 2} = \frac{2x + 1}{2} \quad | \cdot (x + 2)$$

$$x^2 + 3x - 1 = \frac{2x^2 + 5x + 2}{2} \quad | \cdot 2$$

$$2x^2 + 6x - 2 = 2x^2 + 5x + 2 \quad | - 2x^2$$

$$6x - 2 = + 5x + 2 \quad | - 5x$$

$$1x - 2 = 2 \quad | + 2$$

$$1x = 4 \quad | : 1$$

$$x = 4$$