Aufgaben:

1) 
$$10x^2 - 120 + 6x = 98x - 3x^2 - 24$$

**2)** 
$$(x-5)(2x-17)-(x-7)(3x+1)=84$$

3) 
$$4x(12x - 13) + 11x(4 - 3x) = 16(15 - \frac{1}{2}x)$$

**4)** 
$$(3x-4)^2 - (4x-3)^2 + (5x-2)(5x+2) = 18(x+2) + 3$$

**5)** 
$$(5-x)(x+1) = (10-2x)(5x-9)$$

**6)** 
$$(x-3)(x+2)+x=19$$

7) 
$$25x^2 - 3x + 8 - 3x^2 = 7x^2 + 25x + 3$$

8) 
$$5x(3x-10) = 10x-3x^2$$

9) 
$$x(3x-7)-x+4=(x+2)^2$$

**10)** 
$$(x-2)^2 - 3(x-2) - 10 = 0$$

11) 
$$7x(5x - 4) - 8x(4x - 5) = 3(9 + 4x)$$

12) 
$$(x+1)(2x+3) = 4x^2 - 22$$

13) 
$$10x^2 - 7x = 7x^2 + 4x + 20$$

**14)** 
$$(4x - 7)(3x + 1) = (1 - 5x)(3\frac{1}{2} - 2x)$$

**15)** 
$$3(5-2x) = x(12x-2) + 10$$

**16)** 
$$(5-x)(x+1) = (10-2x)(5x-9)$$

17) 
$$11x^2 - 7x = 8x^2 + 4x + 20$$

**18)** 
$$(3x-4)^2 - (4x-3)^2 + (5x-2)(5x+2) = 18(x+2) + 3$$

**19)** 
$$3x(x-10) = 2x(x-10) - 5x$$

**20)** 
$$18x - 12(3x + 9) = 3(12 - 3x) - 5(2x + 7)$$

Lösung:

$$L = \{-\frac{12}{13}; 8\}$$

$$L=\{\textbf{-}8;1\}$$

$$L = \{-4, 4\}$$

$$L = \{-1, 2\}$$

$$L = \{2\frac{1}{9}; 5\}$$

$$L = \{-5; 5\}$$

$$L = \{\frac{1}{5}; 1\frac{2}{3}\}$$

$$L = \{0; 3\frac{1}{3}\}$$

$$L = \{0; 6\}$$

$$L = \{0; 7\}$$

$$L = \{-3, 3\}$$

$$L = \{-2\frac{1}{2}; 5\}$$

$$L = \{-1\frac{1}{3}; 5\}$$

$$L = \{-3; 1\frac{3}{4}\}$$

$$L = \{-\frac{5}{6}; \frac{1}{2}\}$$

$$L = \{2\frac{1}{9}; 5\}$$

$$L = \{-1\frac{1}{3}; 5\}$$

$$L = \{-1, 2\}$$

$$L = \{0; 5\}$$

$$L = \{109\}$$