Aufgabe 27

1. $5 - x = 25 + 3x - 4$
2. $16 + 2x = 56 - 8x - 20$
3. $2x - 22 - 9x = 42 + 11x - 100$
4. $19x - 32 + 17x = 18x - 30 + 16x - 3$
5. $9x - 11 - 3x = 4x + 12 - 3x$
6. $105 - 72x - 53 - 69 = 65x + 43x - 18 - 5$

Aufgabe 28

1. $0 = 8x - (4x + 12)$
2. $7x - 10 = 15 - (x - 14)$
3. $7(x + 1) = 6(x - 1)$
4. $57 - 2(x + 21) = 63 - 2(3x + 4)$
5. $5(x + 7) + 2(x + 7) - 4(x + 7) = 3$
6. $15 - 3(2x - 1) = 16(x + 1) - 2(x - 1)$

Aufgabe 29

1. $(x + 1)(x + 7) = (x + 2)(x + 3)$
2. $2(x + 2)(x + 5) = (2x + 7)(x + 3)$
3. $2x^2 - (x + 3)(x - 3) = (x + 1)^2$
4. $(x + 3)(x - 5) = (x - 3)^2$
5. $(2x - 3)^2 - (x - 5)^2 - 3x(x - 7) + 17 = 0$
6. $5x(x - 1) - (2x + 3)^2 - (x - 5)(x + 3) - 6 = 0$

Aufgabe 30

1. $x + \dfrac{x}{3} + \dfrac{x}{6} = 45$
2. $\dfrac{4x + 1}{26} - \dfrac{2x - 1}{39} = 0$
3. $\dfrac{x}{4} + \dfrac{1}{5} = \dfrac{x}{2} + \dfrac{x}{6}$
4. $\dfrac{2x}{3} - \dfrac{4x}{9} = 31 - \dfrac{3x}{2}$
5. $\dfrac{8x - 15}{12} + \dfrac{3x + 18}{15} = 2$
6. $4\frac{2}{3} - \dfrac{5x - 1}{6} = \dfrac{34x - 1}{3} - 7$

Aufgabe 31

1. $\dfrac{2}{x} = \dfrac{x - 3}{3x} - \dfrac{x + 5}{4x}$
2. $\dfrac{1}{x} + \dfrac{2x + 5}{x + 6} = 2$
3. $\dfrac{2}{x - 2} = \dfrac{1}{3}$
4. $\dfrac{7}{x - 4} - \dfrac{2}{x - 4} = 1$
5. $\dfrac{5}{x + 1} = \dfrac{3}{x + 1} + \dfrac{1}{2}$
6. $\dfrac{x + 4}{2(x - 1)} - \dfrac{5(x - 3)}{2(x - 1)} - \dfrac{4}{2(x - 1)} = 0$
7. $\dfrac{5(x - 3)}{12x} - \dfrac{2(x + 1)}{15x} = 1$
8. $\dfrac{1}{4} - \dfrac{1}{2(x + 5)} = \dfrac{3}{x + 5}$

Aufgabe 32

1. $\dfrac{4x - 9}{x^2 - 3x - 40} = \dfrac{3}{x + 5}$
2. $\dfrac{5}{x^2 - 9} - \dfrac{3}{x^2 - 6x + 9} = 0$
3. $\dfrac{32x - 11}{15x - 21} - \dfrac{2(x + 9)}{25x - 35} + \dfrac{16}{40x - 56} = 1$
4. $\dfrac{15}{x + 7} - \dfrac{3}{x - 3} = \dfrac{x - 4}{x^2 + 4x - 21}$
5. $\dfrac{14 - 2x}{x - 1} - \dfrac{9x + 1}{1 - x} = 1$
6. $\dfrac{2}{x - 1} + \dfrac{3}{x - 2} = \dfrac{20}{4x - 7}$
7. $\dfrac{1}{x - 7} + \dfrac{3}{x + 7} = \dfrac{3x - 5}{x^2 - 49}$
8. $\dfrac{9x - 1}{x^2 - 9x + 20} = \dfrac{5}{x - 4} - \dfrac{1}{x - 5}$

Aufgabe 27

1. -4
2. 2
3. 2
4. $-\dfrac{1}{2}$
5. 4.6
6. $\dfrac{1}{30}$

Aufgabe 28

1. 3
2. $\dfrac{39}{8}$
3. -13
4. 10
5. -6
6. 0

Aufgabe 29

1. $-\dfrac{1}{3}$
2. 1
3. 4
4. 6
5. $-\dfrac{1}{19}$
6. 0

Aufgabe 30

1. 30
2. $-\dfrac{5}{8}$
3. $\dfrac{12}{25}$
4. 18
5. $\dfrac{123}{52}$
6. 1

Aufgabe 31

1. 51
2. 1
3. 8
4. 9
5. 3
6. $\dfrac{15}{4}$
7. $-\dfrac{83}{43}$
8. 9

Aufgabe 32

1. -15
2. 12
3. $-\dfrac{26}{79}$
4. $\dfrac{62}{11}$
5. 2
6. 3
7. 9
8. -4