

... und jz wird geübt, dass es nur so eine Freude ist:

Aufgaben 41 bis 80: Ermittle Definitions- und Lösungsmenge der folgenden Bruchgleichungen!

$$41) \quad \frac{x+16}{x^2-2x} + \frac{x-2}{x^2+16x} = \frac{x}{x^2+14x-32}$$

$$42) \quad \frac{x+4}{x-8} + \frac{x+8}{x-4} = \frac{4x^2-24x-16}{x^2-12x+32}$$

$$43) \quad \frac{1}{x+3} + \frac{1}{x+11} = \frac{1}{x+2}$$

$$44) \quad \frac{12}{x^2-14x+49} + \frac{12}{x^2+14x+49} = \frac{7}{x^2-49}$$

$$45) \quad \frac{5}{x^2+12x+36} - \frac{5}{x^2-12x+36} = \frac{24}{x^2-36}$$

$$46) \quad \frac{x-5}{x^2-10x} + \frac{x-10}{x^2-5x} = \frac{x}{x^2-15x+50}$$

$$47) \quad \frac{12}{x^2+20x+100} - \frac{12}{x^2-20x+100} = \frac{32}{x^2-100}$$

$$48) \quad \frac{x-40}{x^2-5x} + \frac{x-5}{x^2-40x} = \frac{x}{x^2-45x+200}$$

$$49) \quad \frac{35}{x^2+24x+144} - \frac{35}{x^2-24x+144} = \frac{24}{x^2-144}$$

$$50) \quad \frac{1}{x+5} + \frac{1}{x-2} = \frac{1}{x-11}$$

$$51) \quad \frac{x-5}{x+7} + \frac{x-7}{x+5} = \frac{5x^2+36x+31}{x^2+12x+35}$$

$$52) \quad \frac{1}{x-4} + \frac{1}{x+1} = \frac{1}{x-8} !$$

$$53) \quad \frac{x-7}{x+6} + \frac{x-6}{x+7} = \frac{-2x^2-52x-253}{x^2+13x+42}$$

$$54) \quad \frac{1}{x+6} + \frac{1}{x-1} = \frac{1}{x-10}$$

$$55) \quad \frac{x-6}{x+9} + \frac{x-9}{x+6} = \frac{-3x^2-75x-387}{x^2+15x+54}$$

$$56) \quad \frac{1}{x-5} + \frac{1}{x+4} = \frac{1}{x-6}$$

$$57) \quad \frac{x+1}{x^2-8x} + \frac{x-8}{x^2+x} = \frac{x}{x^2-7x-8}$$

$$58) \quad \frac{x+2}{x+3} + \frac{x-3}{x-2} = \frac{x^2-x-7}{x^2+x-6}$$

$$59) \quad \frac{x-2}{x^2-x} + \frac{x-1}{x^2-2x} = \frac{x}{x^2-3x+2}$$

$$60) \quad \frac{x+3}{x+4} + \frac{x-4}{x-3} = \frac{3x^2+x-37}{x^2+x-12}$$

$$61) \quad \frac{x+16}{x^2-2x} + \frac{x-2}{x^2+16x} = \frac{x}{x^2+14x-32}$$

$$62) \quad \frac{x+4}{x-8} + \frac{x+8}{x-4} = \frac{4x^2-24x-16}{x^2-12x+32}$$

$$63) \quad \frac{1}{x+1} + \frac{1}{x+6} = \frac{1}{x-3}$$

$$64) \quad \frac{2}{x^2+6x+9} - \frac{2}{x^2-6x+9} = \frac{3}{x^2-9}$$

$$65) \quad \frac{1}{x+2} + \frac{1}{x-3} = \frac{1}{x-7}$$

$$66) \quad \frac{6}{x^2+10x+25} - \frac{6}{x^2-10x+25} = \frac{5}{x^2-25}$$

$$67) \quad \frac{1}{x-3} + \frac{1}{x+5} = \frac{1}{x-4}$$

$$68) \quad \frac{3}{x^2 + 16x + 64} - \frac{3}{x^2 - 16x + 64} = \frac{8}{x^2 - 64}$$

$$69) \quad \frac{1}{x + 3} + \frac{1}{x + 11} = \frac{1}{x + 2}$$

$$70) \quad \frac{12}{x^2 - 14x + 49} - \frac{12}{x^2 + 14x + 49} = \frac{7}{x^2 - 49}$$

$$71) \quad \frac{x - 32}{x^2 - 4x} + \frac{x - 4}{x^2 - 32x} = \frac{x}{x^2 - 36x + 128}$$

$$72) \quad \frac{4}{x^2 + 60x + 900} - \frac{4}{x^2 - 60x + 900} = \frac{15}{x^2 - 900}$$

$$73) \quad \frac{x - 1}{x + 5} + \frac{x - 5}{x + 1} = \frac{-x^2 - 18x - 41}{x^2 + 6x + 5}$$

$$74) \quad \frac{1}{x + 4} + \frac{1}{x + 19} = \frac{1}{x + 3}$$

75) aus: Klasse: 5C(Rg) **1. Schularbeit (Gruppe A)**^{27.10.2005}

$$\frac{20}{x^2 + 18x + 81} - \frac{20}{x^2 - 18x + 81} = \frac{9}{x^2 - 81}$$

$$76) \quad \frac{1}{x - 2} + \frac{1}{x - 9} = \frac{1}{x - 18}$$

$$77) \quad \frac{x + 5}{x^2 - 3x} + \frac{x + 1}{x^2 + 3x} = \frac{x + 10}{x^2 - 9}$$

$$78) \quad \frac{x - 3}{x^2 - 15x} + \frac{x - 6}{x^2 + 15x} = \frac{x - 23}{x^2 - 225}$$

$$79) \quad \frac{x + 18}{x^2 - x} + \frac{x - 15}{x^2 + x} = \frac{x + 17}{x^2 - 1}$$

$$80) \quad \frac{x + 6}{x^2 - 2x} + \frac{x - 18}{x^2 + 2x} = \frac{x + 4}{x^2 - 4}$$