

$$(x^2 + 2x + 2)/(x + 1) + (x^2 + 8x + 20)/(x + 4) = (x^2 + 4x + 6)/(x + 2) + (x^2 + 6x + 12)/(x + 3)$$

$$x+1+1/(x+1) + x+4+4/(x+4)-(x+2+2/(x+2)+x+3+3/(x+3))=0$$

$$x+1+1/(x+1) + x+4+4/(x+4)-x-2-2/(x+2)-x-3-3/(x+3)=0$$

$$1/(x+1)+4/(x+4)-2/(x+2)-3/(x+3)=0$$

$$[1/(x+1)+4/(x+4)]-[2/(x+2)+3/(x+3)]=0$$

$$[(x+4)+4(x+1)]/(x+4)(x+1)-[2(x+3)+3(x+2)]/(x+3)(x+2)=0$$

$$[x+4+4x+4]/(x+4)(x+1)-[2x+6+3x+6]/(x+3)(x+2)=0$$

$$[5x+8]/(x+4)(x+1)-[5x+12]/(x+3)(x+2)=0$$

$$((5x+8)(x+3)(x+2)-(5x+12)(x+4)(x+1))/(x+4)(x+1)(x+3)(x+2)=0$$

$$[(5x^3+15x^2+10x^2+30x+8x^2+16x+24x+48)-(5x^3+20x^2+5x^2+20x+12x^2+48x+12x+48)]/(x+4)(x+1)(x+3)(x+2)=0$$

$$[(5x^3+33x^2+70x+48)-(5x^3+37x^2+80x+48)(x+1)]/(x+4)(x+1)(x+3)(x+2)=0$$

$$[5x^3+33x^2+70x+48-5x^3-37x^2-80x-48]/(x+4)(x+1)(x+3)(x+2)=0$$

$$[-4x^2-10x]/(x+4)(x+1)(x+3)(x+2)=0$$

$$4x^2+10x=0$$

$$x(4x+10)=0$$

$$x=0 \quad x=-10/4$$

$$\begin{array}{r} x^2 + 2x + 2 | x+1 \\ x^2 + x \quad | x+1 \\ \hline x+2 \\ x+1 \\ 1 \end{array}$$

$$\begin{array}{r} x^2 + 8x + 20 | x+4 \\ x^2 + 4x \quad | x+4 \\ \hline 4x+20 \\ 4x+16 \\ 4 \end{array}$$

$$\begin{array}{r} x^2 + 4x + 6 | x+2 \\ x^2 + 2x \quad | x+2 \\ \hline 2x+6 \\ 2x+4 \\ 2 \end{array}$$

Смешанное число

