3) (x+3)/(4x^2−9) − (3−x)/(4x^2+12x+9) = 2/(2x−3)

(x+3)/(2x−3)(2x+3) − (3−x)/(2x+3)^2 - 2/(2x−3)=0

((x+3)(2x+3)−(3−x)(2x−3)-2(2x+3)^2)/(2x−3)(2x+3)(2x+3)=0

(2x^2+6x+3x+9−6x+2x^2+9-3x-8x^2-24x-18)/(2x−3)(2x+3)(2x+3)=0

(-4x^2-24x)/(2x−3)(2x+3)(2x+3)=0

(-4x^2-24x)=0 (2x−3)(2x+3)(2x+3)!=0

4x^2+24x=0 x!=+-3/2

x(4x+24)=0

4x(x+6)=0

x=0

x=-6

Отв:0;-6

3.5) 30/(x^2−1) + (7−18x)/ (x^3+1) = 13/(x^2−x+1)

30/(x^2−1) + (7−18x)/ (x^3+1) - 13/(x^2−x+1)=0

30/(x-1)(x+1)+(7−18x)/(x+1)(x^2-x+1)- 13/(x^2−x+1)=0

30(x^2-x+1)/(x-1)(x+1)(x^2-x+1)+(7−18x)(x-1)/(x+1)(x^2-x+1)(x-1)- 13(x-1)(x+1)/(x-1)(x+1)(x^2−x+1)=0

[30(x^2-x+1)+(7−18x)(x-1)- 13(x-1)(x+1)]/(x-1)(x+1)(x^2−x+1)=0

[30x^2-30x+30+7x−18x^2-7+18x-13x^2+13x-13x+13]/(x-1)(x+1)(x^2−x+1)=0

[-x^2-5x+36]/(x-1)(x+1)(x^2−x+1)=0

x^2+5x-36=0 (x-1)(x+1)(x^2−x+1)!=0

x1=-9

x2=4

отв:-9 4