Öva konjugatregeln

Definition: $(a+b)(a-b) = a^2-ab+ab-b^2 = a^2-b^2$

Exempel: $(x+4)(x-4) = x^2-4^2 = x^2-16$

Använd konjugatregeln som i exemplet ovan

$(x+1)(x-1) =$_____

$(x+2)(x-2) =$_____

$(x+5)(x-5) =$_____

$(x+10)(x-10) =$_____

$(2x+1)(2x-1) =$_____

$(2x+5)(2x-5) =$_____

$(x^2+4)(x^2-4) =$_____

$(x^2+x)(x^2-x) =$_____

$(x+2)(x+2) =$_____

$(x+1)^3 =$_____

$(x+5)(x-7) =$_____

$(x+2)(-x+2) =$_____

$(x-2)(x+2) =$_____

Använd konjugatregeln ”baklänges”

$x^2 - 1 =$ _____

$x^2 - 9 =$ _____

$16 - x^2 =$ _____

$9x^2 - 81 =$ _____

Facit

$(x+1)(x-1) = x^2 - 1$

$(x+2)(x-2) = x^2 - 4$

$(x+5)(x-5) = x^2 - 25$

$(x+10)(x-10) = x^2 - 100$

$(2x+1)(2x-1) = 4x^2 - 1$

$(2x+5)(2x-5) = 4x^2 - 25$

$(x^2+4)(x^2-4) = x^4 - 16$

$(x^2+x)(x^2-x) = x^4 - x^2$

$(x+2)(x+2) = (x+2)^2 = x^2 + 4x + 4$

$(x+1)^3 = (x+1)^2(x+1) = (x^2+2x+1)(x+1) = x^3 + x^2 + 2x^2 + 2x + x + 1 = x^3 + 3x^2 + 3x + 1$

$(x+5)(x-7) = x^2 - 7x + 5x - 35 = x^2 - 2x - 35$

$(x+2)(-x+2) = (2+x)(2-x) = 4 - x^2$

$(x-2)(x+2) = (x+2)(x-2) = x^2 - 4$

Använd konjugatregeln "baklänges"

$x^2 - 1 = (x+1)(x-1)$

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

$16 - x^2 = (4+x)(4-x)$

$9x^2 - 81 = (3x+9)(3x-9)$