

Factorisation

Practice Questions

Factorise the following expressions.

- $3a^2 - 9ab.$
- $4x^2 + 8xy.$
- $3a^2 - 9ax.$
- $10x^2y + 20xy^2.$
- $2a^2b - 28ab.$
- $1 - 81a^2.$
- $25 - 16x^2.$
- $4x^2 - y^2.$
- $y^2 - 121.$
- $x^2y^2 - 100.$
- $x^2 - 11x + 30.$
- $a^2 - a - 132.$
- $x^2 - 6x - 16.$
- $y^2 - 10y + 21.$
- $x^2 - 3x - 28.$
- $b^2 - b - 12.$
- $y^2 + 4y - 77.$
- $x^4 + 6x^2 + 9.$
- $y^2 - 8y + 16.$
- $25 + 10a + a^2.$
- $2x^2 + 6x - 8.$
- $5x^2 + 7x + 2.$
- $2y^2 + y - 6.$
- $5x^2 - 13x + 6.$
- $4x^2 + 12x + 9.$
- $2a^2 + 11a - 21.$
- $12x^2 - 35x + 25.$
- $2y^2 + 9y + 7.$
- $9x^2 - 42x + 21.$
- $25 - 20a + 4a^2.$
- $ax + ay - x - y.$
- $p^2 - q^2 + 3p + 3q.$
- $ab + ac - 8b - 8c.$
- $8ac + 4ad + 6bc + 3bd.$
- $4ax - bx - 4ay + by.$
- $a^3 - 8.$
- $8b^3 + 27.$
- $x^3 - 27.$
- $64y^3 - 125x^3.$
- $a^6 - b^6.$
- $3m^2 - 75.$
- $4y^2 - 36y^6.$
- $4a^2y + 4a^2 + 4axy + 4ax.$
- $(p + q)^2 - p^2.$
- $(y - 3)^2 - x^2.$
- $x^3 - 7x^2 + 12x.$
- $y^3 - 5y^2 - 14y.$
- $16a^2b - 121b^3.$
- $8x^4y - 125xy^4.$
- $a^3bc - ab^3c.$

Factorisation

Practice Questions

Answers

- $3a(a - 3b)$.
- $4x(x + 2y)$.
- $3a(a - 3x)$.
- $10xy(x + 2y)$.
- $2ab(a - 14)$.
- $(1 - 9a)(1 + 9a)$.
- $(5 - 4x)(5 + 4x)$.
- $(2x + y)(2x - y)$.
- $(y + 11)(y - 11)$.
- $(xy - 10)(xy + 10)$.
- $(x - 5)(x - 6)$.
- $(a - 12)(a + 11)$.
- $(x - 8)(x + 2)$.
- $(y - 7)(y - 3)$.
- $(x - 7)(x + 4)$.
- $(b - 4)(b + 3)$.
- $(y + 11)(y - 7)$.
- $(x^2 + 3)^2$.
- $(y - 4)^2$.
- $(5 + a)^2$.
- $2(x + 4)(x - 1)$.
- $(5x + 2)(x + 1)$.
- $(2y - 3)(y + 2)$.
- $(5x - 3)(x - 2)$.
- $(2x + 3)^2$.
- $(2a - 3)(a + 7)$.
- $(4x - 5)(3x - 5)$.
- $(2y + 7)(y + 1)$.
- $(3x - 7)^2$.
- $(5 - 2a)^2$.
- $(x + y)(a - 1)$.
- $(p + q)(p - q + 3)$.
- $(b + c)(a - 8)$.
- $(4a + 3b)(2c + d)$.
- $(4a - b)(x - y)$.
- $(a - 2)(a^2 + 2a + 4)$.
- $(2b + 3)(2b^2 - 6b + 9)$.
- $(x - 3)(x^2 + 3a + 9)$.
- $(4y - 5x)(16y^2 + 20xy + 25x^2)$.
- $(a + b)(a - b)(a^2 + ab + b^2)(a^2 - ab + b^2)$.
- $3(m - 5)(m + 5)$.
- $4y^2(1 + 3y^2)(1 - 3y^2)$.
- $4a(a + x)(y + 1)$.
- $q(2p + q)$.
- $(y - 3 + x)(y - 3 - x)$.
- $x(x - 3)(x - 4)$.
- $y(y - 7)(y + 2)$.
- $b(4a + 11b)(4a - 11b)$.
- $xy(2x - 5y)(4x^2 + 10xy + 25y^2)$.
- $abc(a + b)(a - b)$.