



1. Factorize $(x^2 - 6x - 27)$

- (i) $(x+3)(-2x-9)$ (ii) $(x+3)(3x-9)$ (iii) $(x+3)(x-9)$ (iv) $(x+3)(-9)$ (v) $(x+3)(2x-9)$

2. Factorize $(4x^3 + 2x^2 - 4x - 2)$

- (i) $(2x+1)2(-2x-1)$ (ii) $(2x+1)(4x+2)(4x-1)$ (iii) $(2x+1)(3x+2)(2x-1)$ (iv) $(2x+1)(2x+2)(x-1)$
(v) $(2x+1)(x+2)(-1)$

3. Factorize $(x^2 + 2xa + 3x + a^2 + 3a - 18)$

- (i) $(x+a-3)(x-a+6)$ (ii) $(x-a+6)(x+a+3)$ (iii) $(x+a+6)(x-a-3)$ (iv) $(x+a+6)(x+a-3)$
(v) $(x-a-3)(x+a-6)$

4. Factorize $(27x^2 - 36xy - 36y^2)$

- (i) $(9x+6y)(3x-6y)$ (ii) $(9x+6y)(9x-6y)$ (iii) $(9x-6y)(3x+6y)$ (iv) $(9x+6y)(3x+6y)$
(v) $(9x-6y)(3x-6y)$

5. Factorize $49a^3 - 4a$

- (i) $(7a+2)(7a-2)a$ (ii) $(7a-2)(7a^2+2)a$ (iii) $(7a^2+2)(2a-7)a$ (iv) $(7a+2)(7a^2+2)a$
(v) $(7a+2)(2a-7)a$

6. Factorize $(x^2 + 5x + 4)$

- (i) $(x-1)(x-4)$ (ii) $(x+1)(x-4)$ (iii) $(x+1)(x+4)$ (iv) $(x-1)(x+4)$

7. Factorize $a^2 - b^2 - c^2 - 2bc$

- (i) $(a-b-c)(a-b+c)$ (ii) $(a-b-c)(a+b-c)$ (iii) $(a+b+c)(a-b+c)$ (iv) $(a-b-c)(a+b+c)$
(v) $(a+b+c)(a+b-c)$

8. Factorize $a^2c^2 - b^2c^2 - a^2d^2 + b^2d^2$

- (i) $(a+b)(a-b)(c+d)(c-d)$ (ii) $(a+b)(a-b)(c+d)(b-d)$ (iii) $(a+b)(a-c)(c+d)(c-d)$
(iv) $(a+b)(a-b)(b+d)(c-d)$ (v) $(a+c)(a-c)(b+d)(b-d)$

9. Factorize $(8x^2 + 6xy - 9y^2)$

- (i) $(2x+3y)(2x+3y)$ (ii) $(2x+3y)(4x-3y)$ (iii) $(2x-3y)(4x-3y)$ (iv) $(2x-3y)(4x+3y)$
(v) $(2x+3y)(4x+3y)$

10. Factorize $(30xy+40y^2)$

(i) $5y(-6x-8y)$ (ii) $5x(6x-8y)$ (iii) $5y(6x-8y)$ (iv) $5x(6x+8y)$ (v) $5y(6x+8y)$

11. Factorize $(35a^2b+56ab^2)$

(i) $7ab(-5a-8b)$ (ii) $7ab(5a+8b)$ (iii) $7ab(5a-8b)$ (iv) $7b(5a-8b)$ (v) $7a(5a+8b)$

Assignment Key

1) (iii)

2) (iv)

3) (iv)

4) (i)

5) (i)

6) (iii)

7) (iv)

8) (i)

9) (ii)

10) (v)

11) (ii)

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