



1. Factorize $(16a^2 - 24ab + 9b^2)$

- (i) $(4a-3b)(4a-3b)$ (ii) $(3a-3b)(3a-3b)$ (iii) $(5a-3b)(5a-3b)$ (iv) $(4a-5b)(4a-6b)$
(v) $(4a-b)4a$

2. Factorize $(25a^2 - 30ab + 9b^2)$

- (i) $(5a-3b)(5a-3b)$ (ii) $5a5a$ (iii) $(4a-3b)(4a-3b)$ (iv) $(6a-3b)(6a-3b)$ (v) $(5a-6b)(5a-6b)$

3. Factorize $(16a^2 - 9b^2)$

- (i) $(-4a-6b)(-4a)$ (ii) $(-3a-3b)(-3a+3b)$ (iii) $(-5a-3b)(-5a+3b)$ (iv) $(-4a-3b)(-4a+3b)$
(v) $(-4a)(-4a+6b)$

4. Factorize $(a^2 + 8ab - 4ac + 16b^2 - 16bc + 4c^2)$

- (i) $(-a-b+2c)(-a-b+2c)$ (ii) $(-a-4b+2c)(-a-4b+2c)$ (iii) $(-a-6b+2c)(-a-6b+2c)$
(iv) $(-2a-4b+2c)(-2a-4b+2c)$ (v) $(-4b+2c)(-4b+2c)$

5. Find the number of numbers between 7^2 and 8^2

- (i) 17 (ii) 13 (iii) 14 (iv) 11 (v) 15

6. Factorize $(6x+7y)^2 + 2(6x+7y)(9x+8y) + (9x+8y)^2$

- (i) $(3x+2y)^2$ (ii) $(16x+15y)^2$ (iii) $(6x+7y)(9x+8y)$ (iv) $(15x+15y)^2$ (v) $(-3x-y)^2$

7. Factorize $(9x+5y)^2 - 2(9x+5y)(8x+4y) + (8x+4y)^2$

- (i) $(-y)^2$ (ii) $(17x+9y)^2$ (iii) $(2x+y)^2$ (iv) $(9x+5y)(8x+4y)$ (v) $(x+y)^2$

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

- (i) $(ab-bc)(ab-bc)$ (ii) $(ab+bc)(ab+bc)$ (iii) $(ab+bc)(ac+bc)$ (iv) $(ab+bc)(ab-bc)$
(v) $(ac+bc)(ac-bc)$

9. Factorize $(x^2 - 81)$

- (i) $(x-9)(x-9)$ (ii) $(x+9)(x-9)$ (iii) $(x+9)(x+9)$ (iv) $(x-27)(x+3)$ (v) $(x+27)(x-3)$

10. Factorize $(9x^2 - 81)$

- (i) $(3x+9)(3x-9)$ (ii) $(3x-27)(3x+3)$ (iii) $(3x-9)(3x-9)$ (iv) $(3x+9)(3x+9)$ (v) $(3x+27)(3x-3)$

11. Factorize $(100x^2 - 100y^2)$

- (i) $(10x - 4y)(10x + 25y)$ (ii) $(10x + 4y)(10x - 25y)$ (iii) $(10x + 10y)(10x + 10y)$
(iv) $(10x + 10y)(10x - 10y)$ (v) $(10x - 10y)(10x - 10y)$

12. Factorize $(b^4 - 1296)$

- (i) $(b + 6)(b - 6)(b - 6)$ (ii) $(b + 6)(b - 6)(b^2 - 12)$ (iii) $(b^2 + 36)(b^2 - 12)$ (iv) $(b + 6)(b - 6)(b^2 + 36)$
(v) $(b + 6)(b + 6)(b - 6)$

13. Factorize $(a + b)^2 - c^2$

- (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) $(a + b + c)(a - b - c)$

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

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

15. Factorize $(ax + by)^2 - (ax - by)^2$

- (i) $4(ax)^2(by)^2$ (ii) $2axby$ (iii) $2(ax)^2(by)^2$ (iv) $4axby$

Assignment Key

1) (i)	2) (i)	3) (iv)	4) (ii)	5) (iii)	6) (iv)
7) (v)	8) (iv)	9) (ii)	10) (i)	11) (iv)	12) (iv)
13) (iv)	14) (i)	15) (iv)			

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