



1. Find 105^3

- (i) 1157625 (ii) 1157645 (iii) 1157605 (iv) 1157635 (v) 1157615

2. Factorize $(3x^2 - 3y^2)$

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

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

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

4. Factorize $4a^3 - 81a$

- (i) $(2a-9)(2a^2+9)a$ (ii) $(2a+9)(2a-9)a$ (iii) $(2a^2+9)(9a-2)a$ (iv) $(2a+9)(2a^2+9)a$
(v) $(2a+9)(9a-2)a$

5. Factorize $(a^3 - 15a^2b + 75ab^2 - 125b^3)$

- (i) $(a-2b)(a-2b)(a-2b)$ (ii) $(a-5b)(a-5b)(a-5b)$ (iii) $(a-8b)(a-8b)(a-7b)$
(iv) $(2a-5b)(2a-5b)(2a-5b)$ (v) $(-5b)(-5b)(-5b)$

6. Factorize $(42xy + 63y^2)$

- (i) $7x(6x-9y)$ (ii) $7x(6x+9y)$ (iii) $7y(-6x-9y)$ (iv) $7y(6x+9y)$ (v) $7y(6x-9y)$

7. Find the H.C.F. of $114x^2yz^2$ and $18x^2y^2z$

- (i) $6x^2yz$ (ii) $342x^2y^2z^2$ (iii) $6x^2yz^3$ (iv) $6x^3yz$ (v) $6x^2y^3z$

8. Find the H.C.F. of $(x^2 + 15x + 56)$ and $(x^2 + 4x - 32)$

- (i) $(2x+7)$ (ii) $(2x+8)$ (iii) $(x-4)$ (iv) $(x+8)$ (v) $(x+7)$

9. Factorize $(16x^2 - 25y^2)$

- (i) $(4x-5y)(4x-5y)$ (ii) $(4x+5y)(4x+5y)$ (iii) $(4x-5y)(4x+5y)$ (iv) $(4x+5y)(4x-5y)$

10. Factorize $(x^2 - 64)$

- (i) $(x+8)(x+8)$ (ii) $(x+32)(x-2)$ (iii) $(x+8)(x-8)$ (iv) $(x-8)(x-8)$ (v) $(x-32)(x+2)$

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

- (i) $(-3a+2b)(-3a-6b)$ (ii) $(-2a+4b)(-2a-4b)$ (iii) $(-3a+6b)(-3a-b)$ (iv) $(-3a+4b)(-3a-4b)$
(v) $(-4a+4b)(-4a-4b)$

12. Which of the following is an irreducible factor of $38x^4y^2z^2$?

- (i) z (ii) xz^2 (iii) $x^2y^2z^2$ (iv) x^2y (v) y^2z

13. Which of the following is not a factor of $17xy^5z^4$?

- (i) $17y^5z^4$ (ii) $17y^2$ (iii) $17xy^4z^4$ (iv) $17xy^6z^5$ (v) $17xy^5z^3$

14. Factorize $(2x+7y)^2 + 2(2x+7y)(6x+5y) + (6x+5y)^2$

- (i) $(9x+12y)^2$ (ii) $(-4x+2y)^2$ (iii) $(8x+12y)^2$ (iv) $(4x-y)^2$ (v) $(2x+7y)(6x+5y)$

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

16. Evaluate : $985^2 - 15^2$

- (i) 970985 (ii) 97000 (iii) 970000 (iv) 970015 (v) 9700000

17. Which of the following is a factor of $(6x^4 + y^4z)$?

- (i) $6x^4$ (ii) x^2z (iii) y^4z (iv) y (v) no factors

18. Which of the following gives the H.C.F of two or more polynomials?

- (i) (H.C.F. of numerical coefficients) \times (Each common factor raised to the highest power)
(ii) (H.C.F. of numerical coefficients) \times (Each common factor raised to the lowest power)
(iii) (Product of numerical coefficients) \times (Each common factor raised to the lowest power)
(iv) (Product of numerical coefficients) \times (Each common factor raised to the highest power)

19. Find 295^3

- (i) 25672375 (ii) 25672385 (iii) 25672395 (iv) 25672365 (v) 25672355

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

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

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

22. Which of the following is a factor of $36x^5y^2z^5$?

- (i) x^5z^6 (ii) x^6z^4 (iii) $x^3y^3z^4$ (iv) x^3z^6 (v) x^3z^4

23. Factorize $(2x^2 - 5x - 3)$

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

24. Find the H.C.F. of $66xy^2$ and $102x^3y^2$

- (i) $6xy^4$ (ii) $6xy^2$ (iii) $6x^4y^2$ (iv) $1122x^3y^2$ (v) $6x^2y^2$

25. Factorize $(x^4 + 4x^3 - 46x^2 - 100x + 525)$

- (i) $(x+7)(3x+5)(4x-5)(4x-3)$ (ii) $(x+7)(2x+5)(2x-5)(2x-3)$ (iii) $(x+7)(-2x+5)(-x-5)(-x-3)$
(iv) $(x+7)(x+5)(x-5)(x-3)$ (v) $(x+7)5(-5)(-3)$

Assignment Key

1) (i)	2) (i)	3) (iv)	4) (ii)	5) (ii)	6) (iv)
7) (i)	8) (iv)	9) (iv)	10) (iii)	11) (iv)	12) (i)
13) (iv)	14) (iii)	15) (iv)	16) (iii)	17) (v)	18) (ii)
19) (i)	20) (i)	21) (iii)	22) (v)	23) (ii)	24) (ii)
25) (iv)					