

EduSahara™ Learning Center Assignment**Grade : Class VII, ICSE****Chapter : Factorisation****Name : Factorisation by Grouping****Licensed To : Teachers and Students for non-commercial use**

1. Factorize ($6x^2 + 24x + 18$)

(i) ($2x + 2$) ($x + 9$)

(ii) ($2x + 2$) ($6x + 9$)

(iii) ($2x + 2$) ($4x + 9$)

(iv) ($2x + 2$) ($3x + 9$)

(v) ($2x + 2$) ($2x + 9$)

2. Factorize ($8x^3 + 36x^2 - 72x - 324$)

(i) ($2x + 6$) ($x - 6$) ($x + 9$)

(ii) ($2x + 6$) ($5x - 6$) ($4x + 9$)

(iii) ($2x + 6$) ($2x - 6$) ($2x + 9$)

(iv) ($2x + 6$) (-6) 9

(v) ($2x + 6$) ($3x - 6$) ($3x + 9$)

3. Factorize ($x^2 + 2xa + x + a^2 + a - 30$)

(i) ($x + a + 6$) ($x - a - 5$)

(ii) ($x - a + 6$) ($x + a + 5$)

(iii) ($x - a - 5$) ($x + a - 6$)

(iv) ($x + a + 6$) ($x + a - 5$)

(v) ($x + a - 5$) ($x - a + 6$)

4. Factorize $(9x^2 + 42xy + 24y^2)$

(i) $(9x - 6y)(x + 4y)$

(ii) $(9x - 6y)(x - 4y)$

(iii) $(9x + 6y)(x - 4y)$

(iv) $(9x + 6y)(x + 4y)$

(v) $(9x + 6y)(9x - 6y)$

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

(i) $(7a + 2)(7a^2 + 2)a$

(ii) $(7a + 2)(7a - 2)a$

(iii) $(7a - 2)(7a^2 + 2)a$

(iv) $(7a + 2)(2a - 7)a$

(v) $(7a^2 + 2)(2a - 7)a$

6. Factorize $(x^2 + 9x + 18)$

(i) $(x + 3)(x + 6)$

(ii) $(x + 3)(x - 6)$

(iii) $(x - 3)(x + 6)$

(iv) $(x - 3)(x - 6)$

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

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

9. Factorize $(8x^2 + 10xy - 3y^2)$

(i) $(2x - 3y)(4x - y)$

(ii) $(2x + 3y)(4x - y)$

(iii) $(2x + 3y)(4x + y)$

(iv) $(2x - 3y)(4x + y)$

(v) $(2x + 3y)(2x + 3y)$

10. Factorize $(42xy + 28y^2)$

(i) $7x(6x + 4y)$

(ii) $7x(6x - 4y)$

(iii) $7y(-6x - 4y)$

(iv) $7y(6x - 4y)$

$$(v) \quad 7y (6x + 4y)$$

11. Factorize $(14a^2b + 28ab^2)$

$$(i) \quad 7b (2a - 4b)$$

$$(ii) \quad 7a (2a + 4b)$$

$$(iii) \quad 7ab (2a - 4b)$$

$$(iv) \quad 7ab (-2a - 4b)$$

$$(v) \quad 7ab (2a + 4b)$$

Assignment Key

- 1) (iv)
- 2) (iii)
- 3) (iv)
- 4) (iv)
- 5) (ii)
- 6) (i)
- 7) (iii)
- 8) (v)
- 9) (ii)
- 10) (v)
- 11) (v)