

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

1. Factorize ($x^2 - 11x + 30$)

(i) ($x - 6$) ($2x - 5$)

(ii) ($x - 6$) ($4x - 5$)

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

(iv) ($x - 6$) ($-2x - 5$)

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

2. Factorize ($x^2 + 2xa - 7x + a^2 - 7a - 8$)

(i) ($x + a + 1$) ($x - a - 8$)

(ii) ($x + a + 1$) ($x + a - 8$)

(iii) ($x - a + 1$) ($x + a + 8$)

(iv) ($x + a - 8$) ($x - a + 1$)

(v) ($x - a - 8$) ($x + a - 1$)

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

(i) ($x + a$) ($x - a - 1$) ($x + a + 1$)

(ii) ($x - a$) ($x - a - 1$) ($x + a + 1$)

(iii) ($x - a$) ($x + a - 1$) ($x - a + 1$)

$$(iv) (x + a)(x + a - 1)(x - a + 1)$$

$$(v) (x + a)(x + a - 1)(x + a + 1)$$

4. Factorize $(54x^2 + 21xy - 20y^2)$

$$(i) (6x - 5y)(9x - 4y)$$

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

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

$$(iv) (6x + 5y)(9x + 4y)$$

$$(v) (6x + 5y)(9x - 4y)$$

5. Factorize $81a^3 - 25a$

$$(i) (9a + 5)(9a^2 + 5)a$$

$$(ii) (9a^2 + 5)(5a - 9)a$$

$$(iii) (9a + 5)(5a - 9)a$$

$$(iv) (9a + 5)(9a - 5)a$$

$$(v) (9a - 5)(9a^2 + 5)a$$

6. Factorize $(x^2 + 15x + 54)$

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

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

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

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

7. Factorize $(t^4 - 48t^2 + 64)$

$$(i) (t^2 + 8t - 8)(t^2 - 8t + 8)$$

$$(ii) (t^2 + 8t + 8)(t^2 - 8t - 8)$$

$$(iii) (t^2 + 8t - 8)(t^2 - 8t - 8)$$

$$(iv) (t^2 + 8t + 8)(t^2 - 8t + 8)$$

$$(v) (t^2 + 8t + 8)(t^2 + 8t - 8)$$

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

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

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

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

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

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

9. Factorize $(3x^2 - 3xy - 6y^2)$

$$(i) (x - y)(3x - 6y)$$

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

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

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

$$(v) (x + y)(x + y)$$

10. Factorize $(32xy + 28y^2)$

$$(i) 4y(-8x - 7y)$$

$$(ii) 4y(8x - 7y)$$

$$(iii) 4x(8x + 7y)$$

$$(iv) 4x(8x - 7y)$$

$$(v) 4y(8x + 7y)$$

11. Factorize $(12a^2b + 18ab^2)$

$$(i) 3a(4a + 6b)$$

$$(ii) 3ab(4a - 6b)$$

$$(iii) 3ab(4a + 6b)$$

$$(iv) 3b(4a - 6b)$$

$$(v) 3ab(-4a - 6b)$$

Assignment Key

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