

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

1. Factorize ($3x^2 + 4x - 32$)

(i) ($x + 4$) ($4x - 8$)

(ii) ($x + 4$) ($6x - 8$)

(iii) ($x + 4$) ($3x - 8$)

(iv) ($x + 4$) ($2x - 8$)

(v) ($x + 4$) ($x - 8$)

2. Factorize ($8x^3 + 60x^2 + 124x + 72$)

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

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

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

(iv) ($2x + 4$) ($3x + 9$) ($3x + 2$)

(v) ($2x + 4$) ($5x + 9$) ($4x + 2$)

3. Factorize ($x^2 + 2xa - x + a^2 - a - 6$)

(i) ($x + a - 3$) ($x - a + 2$)

(ii) ($x + a + 2$) ($x - a - 3$)

(iii) ($x + a + 2$) ($x + a - 3$)

(iv) ($x - a + 2$) ($x + a + 3$)

(v) ($x - a - 3$) ($x + a - 2$)

4. Factorize ($36x^2 - 56xy - 32y^2$)

(i) ($9x + 4y$) ($4x + 8y$)

(ii) ($9x - 4y$) ($4x + 8y$)

(iii) ($9x + 4y$) ($4x - 8y$)

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

(v) ($9x - 4y$) ($4x - 8y$)

5. Factorize $25a^3 - 36a$

(i) ($5a^2 + 6$) ($6a - 5$) a

(ii) ($5a - 6$) ($5a^2 + 6$) a

(iii) ($5a + 6$) ($5a^2 + 6$) a

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

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

6. Factorize ($x^2 + 17x + 72$)

(i) ($x + 9$) ($x + 8$)

(ii) ($x - 9$) ($x - 8$)

(iii) ($x + 9$) ($x - 8$)

(iv) ($x - 9$) ($x + 8$)

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

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

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

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

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

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

8. Factorize $(10x^2 + 5xy - 5y^2)$

$$(i) \quad (5x + 5y) (5x + 5y)$$

$$(ii) \quad (5x + 5y) (2x + y)$$

$$(iii) \quad (5x - 5y) (2x - y)$$

$$(iv) \quad (5x + 5y) (2x - y)$$

$$(v) \quad (5x - 5y) (2x + y)$$

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

$$(i) \quad 5x (8x + 2y)$$

$$(ii) \quad 5y (8x + 2y)$$

$$(iii) \quad 5x (8x - 2y)$$

$$(iv) \quad 5y (-8x - 2y)$$

$$(v) \quad 5y (8x - 2y)$$

10. Factorize $(16a^2b + 14ab^2)$

$$(i) \quad 2b (8a - 7b)$$

$$(ii) \quad 2ab (8a + 7b)$$

$$(iii) \quad 2ab (-8a - 7b)$$

$$(iv) \quad 2a(8a + 7b)$$

$$(v) \quad 2ab(8a - 7b)$$

11. Factorize $(x^4 - x^2 - 6)$

$$(i) \quad (x^2 - 2)(x^2 + 3)$$

$$(ii) \quad (x^2 + 2)(x^2 + 3)$$

$$(iii) \quad (x^2 - 2)(x^2 - 3)$$

$$(iv) \quad (x^2 - 3)(x^2 + 3)$$

$$(v) \quad (x^2 + 2)(x^2 - 3)$$

Assignment Key

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