ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT : Algebra & Geometry**Work sheet27 Answer key**

Marks:15 **Factorisation**

Date:29.5.2021

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1. Factors of $a^2 + bc + ab + ac$ is
   (a) $(a + b)(b + c)$ (b) $(a + b)(a + c)$ (c) $(a + c)(c + b)$ (d) none of these

2. Factors of $ax^2 + by^2 + bx^2 + ay^2$ is
   (a) $(a^2 + b^2)(x^2 + y^2)$ (b) $(a^2 + b^2)(x + y)$ (c) $(a + b)(x^2 + y^2)$ (d) none of these

3. Factors of $1 + a + ac + a^2c$ is
   (a) $(1 + a)(1 + ac)$ (b) $(1 + a)(a + c)$ (c) $(a + c)(1 + ac)$ (d) none of these

4. Factors of $xy - pq + qy - px$ is
   (a) $(p - y)(x + q)$ (b) $(y - p)(x + q)$ (c) $(y + p)(x + q)$ (d) none of these

5. Factors of $ab(x^2 + y^2) + xy(a^2 + b^2)$ is
   (a) $(ax + b)(bx + ay)$ (b) $(ax + by)(bx + ay)$ (c) $(a^2 + b^2)(x^2 + y^2)$ (d) none of these

6. Factors of $49x^2 - 16y^2$ is
   (a) $(7x - 4y)(7x + 4y)$ (b) $(7x - 4y)(7x - 4y)$ (c) $(7x + 4y)(7x + 4y)$ (d) none of these

7. Factors of $48a^2 - 243b^2$ is
   (a) $(4a - 9b)(4a + 9b)$ (b) $(4a - 9b)(4a - 9b)$ (c) $(4a + 9b)(4a + 9b)$ (d) none of these

8. Factors of $4x^2 - y^2 + 6y - 9$ is
   (a) $(2x + y - 3)(2x - y - 3)$ (b) $(2x + y - 3)(2x - y + 3)$
   (c) $(2x + y + 3)(2x - y - 3)$ (d) none of these

9. Evaluate $(502)^2 - (498)^2$ using suitable identity.
   (a) 3000 (b) 4000 (c) 5000 (d) 6000

10. Evaluate $(8.6)^2 - (1.4)^2$ using suitable identity.
    (a) 72 (b) 100 (c) 144 (d) none of these

11. Factors of $x^2 + 10x + 25$ is
    (a) $(x + 5)(x + 2)$ (b) $(x + 5)(x + 5)$ (c) $(x + 20)(x + 5)$ (d) none of these

12. Factors of $x^2 + 8x + 15$ is
    (a) $(x + 3)(x + 5)$ (b) $(x + 15)(x + 1)$ (c) $(x + 10)(x + 5)$ (d) none of these

13. Factors of $x^2 - 7x + 12$ is
    (a) $(x + 3)(x + 4)$ (b) $(x + 3)(x - 4)$ (c) $(x - 3)(x - 4)$ (d) none of these

14. Factors of $x^2 + x - 56$ is
    (a) $(x + 8)(x + 7)$ (b) $(x + 8)(x - 7)$ (c) $(x - 8)(x + 7)$ (d) $(x - 8)(x - 7)$

15. Factors of $x^2 + 10x + 24$ is
    (a) $(x + 4)(x + 6)$ (b) $(x + 12)(x + 2)$ (c) $(x + 8)(x + 3)$ (d) none of these

Answer all thefollowing questions(1×15=15)

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1. **b**
2. **c**
3. **a**
4. **b**
5. **b**
6. **a**
7. **d**
8. **b**
9. **b**
10. **a**
11. **b**
12. **a**
13. **c**
14. **b**
15. **a**