



# ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

**CLASS 8**

**SUBJECT :Algebra & GeometryWork sheet8 Answer Key**

**Marks:15Algebraic Identities**

**Date:30.11.20**

---

**Answer all the following questions(1×15=15)**

1.  $(x-a)(x+b) =$  \_\_\_\_\_

- A)  $x^2+(b-a)x-ab$
- B)  $x^2-(a-b)x+ab$
- C)  $x^2+b-ax-a$
- D) none of these

2.  $(a^2-b^2)^4 =$  \_\_\_\_\_

- A)  $(a+b)2(a-b)^2$
- B)  $(a+b)^4(a-b)^4$**
- C)  $a^4-b^4$
- D) none of these

3.  $a^2+b^2=$  \_\_\_\_\_

- A)  $(a+b)^2+2ab$
- B)  $(a+b)^2-2ab$**
- C)  $a^2 - b^2 +2ab$
- D)  $(a+b)^2-4ab$

4. What must be added to  $x^2 + 1/x^2$  to make it a perfect square?

- A) 0
- B) 2**

C)6

D)5x

5.  $(abc - a^2b^2c^2)^2 = \underline{\hspace{2cm}}$

**A)  $a^2b^2c^2 + a^4 b^4 c^4 - 2a^3b^3c^3$**

B)  $a^2b^2c^2 + a^4 b^4 c^4 + 2a^3b^3c^3$

C)  $a^2b^2c^2 - a^4 b^4 c^4 - 2a^3b^3c^3$

D) none of these

6. If  $x + 1/x = \sqrt{5}$ , find  $x - 1/x$

**A) 1, -1**

B) 2

C) 3

D) 5

7. If  $x^2 + 1/x^2 = 2$ ,  $x^2 - 1/x^2 = -3$  find  $x^4 - 1/x^4$

**A) -6**

B) 2

C) 4

D) 2/3

8.  $a + b = 2$ ,  $a - b = 4$  find  $b^2$

A) 10

B) 12

**C) 1**

D) -1

9.  $(2x^2-4y^2)(2y^2+3x^2)=$  \_\_\_\_\_

**A)  $-8x^2y^2 + 6x^4 - 8y^4$**

B)  $8x^2y^2 + 6x^4 - 8y^4$

C)  $8x^2y^2 - 6x^4 + 8y^4$

D) none of these

10. If  $x^2 - 6x + 1 = 0$ , find the value of  $x^2 + 1/x^2$

**A) 34**

B) 43

C) 64

D) 96

11. If  $x - 1/x = 2$ , find the value of  $x^2 - 2x - 1$

A) 1

**B) 0**

C) 20

D) none of these

12.  $(x+y-z)^2 =$  \_\_\_\_\_

**A)  $x^2+y^2+z^2+2xy-2xz-2zy$**

B)  $x^2-y^2+z^2+2xy-2xz-2zy$

C)  $x^2-y^2+z^2+2xy-2xz+2zy$

D) none of these

$$13.(a-b)^2=(a+b)^2- \_\_\_ ab$$

A) 2

**B) 4**

C) 0

D) none of these

$$14.(1/17a+0.4b^2)(1/17a-0.4b^2)= \_\_\_\_\_\_$$

**A)  $1/289a^2- 0.16b^4$**

B)  $1/289a^2+0.16b^4$

C)  $289a^2+0.16b$

D) none of these

$$15.a^2+b^2=5, a^2-b^2=13, a= ?$$

**A) 3, -3**

B) 4, -4

C) 6

D) none of these

**Indranil Ghosh**

