



# ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

**CLASS 8**

**SUBJECT :Algebra & Geometry**

**Work sheet 6**

**Marks:15**

**Algebraic Identities**

**Date:23.11.20**

---

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

1.  $(x-4)(x+3)=$  \_\_\_\_\_

- A)  $x^2-x-12$
- B)  $x^2-x+12$
- C)  $x^3+x-1$
- D) none of these

2.  $(2y-3)^2 =$

- A)  $4y^2+6y+9$
- B)  $4y^2-12y+9$
- C)  $4y^2+9$
- D) none of these

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

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

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

- A) -1
- B) 9

C) 1

D) 0

5.  $(101)^2 = \underline{\hspace{2cm}}$

A) 10201

B) 10021

C) 1101

D) 1001

6. If  $a-b=3$ ,  $ab=4$ , find  $a+b$

A) 5, -5

B) 1

C) -1

D) none of these

7. Find  $ab$ , if  $a+b=10$ ,  $a-b=2$

A) 6

B) 24

C) 42

D)  $2/3$

8. If  $x + 1/x = 3$ , find  $x^2 + 1/x^2$

A) 11

B) 12

C) 7

D) 0

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

A)  $x^4 -y^4$

B)  $x^4 +y^4$

C)  $x^3+y^4$

D) none of these

10. Find the value of  $52 \times 48$

A) 2496

B) 996

C) 1964

D) 962

11.  $103^2 - 97^2 =$  \_\_\_\_\_

A) 12000

B) 1200

C) 2000

D) none of these

12.  $67 \times 67 - 13 \times 13 =$  \_\_\_\_\_

A) 3740

B) 7400

C) 4320

D) none of these

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

A) 2

B) 4

C) 0

D) none of these

14.  $(3a+2b^2)(3a-2b^2)= \_\_\_\_\_\_$

A)  $9a^2-4b^4$

B)  $9a-4b^2$

C)  $a^2+10b^3$

D) none of these

15.  $(2x-5)(4x+1)= \_\_\_\_\_\_$

A)  $8x^2-18x-5$

B)  $8x^2+9x+5$

C)  $8x^2+x+7$

D) none of these

**Indranil Ghosh**

