



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Algebra & GeometryWork sheet5 Answer key

Marks:15Algebraic Identities

Date:21.11.20

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

1. $(x+4)(x+2) =$ _____

- A) x^2+6x+8
- B) x^2-6x-8
- C) x^3+6x+8
- D) none of these

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

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

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

- A) **4ab**
- B) 2ab
- C) ab
- D) None of these

4. What must be added to $49x^2-42x$ to make it a perfect square

A)9

B)9/10

C) -4

D) 0

5. $(99)^2 = \underline{\hspace{2cm}}$

A) 9809

B) 9801

C) 8091

D) 8649

6. If $a+b=3$, $ab=2$, find $a-b$

A) 1, -1

B) 1

C) -1

D) none of these

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

A) 52

B) 62

C) 42

D) $2/3$

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

A) 11

B) 12

C) 13

D) 0

9. $(x-y)(x+y)(x^2+y^2) = \underline{\hspace{2cm}}$

A) $x^4 - y^4$

B) $x^4 + y^4$

C) $x^3 + y^3$

D) none of these

10. Find the value of 102×98 using identities

A) 9996

B) 996

C) 1996

D) 9096

11. $1003^2 - 997^2 = \underline{\hspace{2cm}}$

A) 12000

B) 1200

C) 2000

D) none of these

12. $687 \times 687 - 313 \times 313 = \underline{\hspace{2cm}}$

A) 374000

B) 37400

C) 374400

D) none of these

13. $(a+b)(a-b)=$ _____

A) a^2-b^2

B) a^2+b^2

C) a^3-b^3

D) none of these

14. $(9a+10b)(9a-10b)=$ _____

A) $81a^2-100b^2$

B) $81a+100b$

C) $81+100b^2$

D) none of these

15. $(3x+5)(2x+7)=$ _____

A) $6x^2+31x+35$

B) $6x^2-30x+30$

C) $x^2+31x+35$

D) none of these

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