



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Algebra & GeometryWork sheet7

Marks:15Algebraic Identities

Date:28.11.20

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

1. $(x-a)(x-b) =$ _____

- A) $x^2 - (a+b)x - ab$
- B) $x^2 - x + b$
- C) $x^3 + bx - a$
- D) none of these

2. $(3y^2 - 4x^2)^2 =$

- A) $9y^2 + 6 + 16x^2$
- B) $9y^4 - 24x^2y^2 + 16x^4$
- C) $4y^2 + 9x^2 + 12$
- D) none of these

3. $(a+b)^4 =$ _____

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

4. What must be subtracted from $x^2 + 9$ to make it a perfect square

- A) 0
- B) $9x$

C)6

D)6x

5. $(1001)^2 = \underline{\hspace{2cm}}$

A) 1002001

B) 1002101

C) 110120

D) 100101

6. If $x^2 - 1/x^2 = 8$, $x + 1/x = 4$ find $x - 1/x$

A) 2

B) 1

C) $-1/2$

D) none of these

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

A) 6

B) 7

C) 4

D) $2/3$

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

A) 119

B) 120

C) 74

D) 50

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

A) $x^4 - y^4 - 2xy$

B) $x^4 + y^4 + 2x^2y^2$

C) $x^3+y^4 +xy$

D) none of these

10. Find the value of a if $a+b=1$, $a-b=3$

A) 2

B) 1

C) $1/2$

D) -1

11. $103^2 + 97^2 - 2 \times 103 \times 97 = \underline{\hspace{2cm}}$

A) 40000

B) 36

C) 200

D) none of these

12. $67 \times 67 + 13 \times 13 + 2 \times 67 \times 13 = \underline{\hspace{2cm}}$

A) 9740

B) 6400

C) 8320

D) none of these

13. $\sqrt{x} + 1/\sqrt{x} = 4$, find $x + 1/x$

A) 14

B) 12

C) 0

D) none of these

14. $(13a^2bc^2 + 12ab^2c)(13a^2bc^2 - 12ab^2c) = \underline{\hspace{2cm}}$

A) $169a^2 - 144b^4 c$

B) $169a^4 b^2c^4 - 144a^2b^4 c^2$

C) $169a^2bc + 144ab^2c^2$

D) none of these

15. $(ax-b)(cx+d) = \underline{\hspace{2cm}}$

A) $bdx^2 - abcdx - ac$

B) $acx^2 + (bd+ad)x + bd$

C) $acx^2 + (ad-bc)x - bd$

D) none of these

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