



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Algebra & GeometryWork sheet8 Answer Key

Marks:15Algebraic Identities

Date:6.2.21

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

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) $(a+b)(a-b)$

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

A) 0

B) 2

C)6

D)5x

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

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

D) $a^2b^2+c^2-2abc$

6. If $x+1/x= 5$, find x^2+1/x^2

A) 1,-1

B) 2

C)23

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

$$13. (a-b)^2 = (a+b)^2 - \underline{\hspace{2cm}}$$

A) 2

B) 4ab

C) 0

D) none of these

$$14. (1/17a + 0.4b^2)(1/17a - 0.4b^2) = \underline{\hspace{2cm}}$$

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

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