ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT : Algebra and Geometry

Work sheet 13

Marks:15

Factorisation

Date:21.4.2020

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

1. Which of the following is the common factor of $21\ x^2y$ and $35\ xy^2$?

(a) 7

(b) xy

(c) 7 xy

(d) none of these

2. Which of the following arc the factors of $1 - x^2$
(a) (x + l) (x – l)

(b) (1 – x) (1 + x)

(c) (1 – x) (1 – x)

(d) (1 + x) (1 + x)

3. Which of the following is the common factor of: 5xy, 3pqr and 40 xyz?

(a) 5

(b) 0

(c) xy

(d) 1

4. Which of the following is quotient obtained on dividing $-18\ xyz^2$ by $-3\ xz$

(a) 6 Yz

(b) –6 yz

(c) 6 x

(d) 6 xy

5. Which of the following is quotient obtained on dividing $(x^2 - b)(x - a)$ by $-(x - a)$?

(i) $(x^2 - b)$

(ii) $\dfrac{-(x^2 - b)}{(x - a)}$

(iii) $-(x^2 - b)$

(iv) $-(x + a)$

6. Which of the following are the factors of ab-a-b+1

(a) ab – a – b + 1 = (1 – a)(1 – b)

(b) ab – a – b + 1 = -(a – 1)(b – 1)

(c) ab – a – b + 1 = (1 – a)(b – 1)

(d) ab – a – b + 1 = (a – 1)(1 – b)

7. Which of the following are the factors of a^2 + ab +bc + ca

(a) (b + c) (c + a)

(b) (a + b) (a + c)

(c) a(a + b + c)

(d) (a + b) (b + c)

8. Which of the following is equal to $x^3 - 225x$
(a) x(1 – 15x) (1 + 15x)

(b) x(x – 15) (x + 15)

(c) x(1 – 15x) (1 – 15x)

(d) x(1 + 15x) (1 – 15x)

9. Which of the following is the factorisation of $x^3 - x'$
(i) $x(x - x^2)$

(ii) x[(1+ x) (1 – x)]

(iii) $x(x^2 - x)$

(iv) x[(x + 1) (x – 1)]

10. (y – x) (y + x) is equal to which of the following:

(i) $y^2 - yx$ (ii) $yx - x^2$ (iii) $y^2 - x^2$ (iv) $x^2 - y^2$

11. Factorise : 6xy – 4y + 6 – 9x.

a. (2y – 3)

b. (3x – 2)

c. (3x – 2) (2y – 3)

d. (2x – 3) (3y – 2)

12. Find the common factors of 12x, 36.

a. 12x

b. x

c. 36

d. 12

13. When we factorise an expression, we write it as a _____ of factors.

a. None of these

b. sum

c. product

d. difference

14. Find and correct the errors in the following mathematical statements. 4 (x – 5) = 4x – 5

a. 4 (x – 5) = 4x – 20

b. None of these

c. 4 (x – 5) = 4x – 16

d. 4 (x – 5) = 4x – 24

15. Divide as directed: 26xy (x + 5) (y – 4) ÷ 13x (y – 4)

a. (x + 5)

b. 2y (x + 5)

c. 2y

d. None of these

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