ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Algebra and Geometry **Class: 7** **Date: 04.07.20**

Duration: 40 min **Worksheet 48** **Full Marks: 15**

ALGEBRAIC EXPRESSIONS

Choose the Correct options:

1. $(x^2-3x+2)/(x-2)$
   (a) x+1
   (b) x-2
   (c) x-1
   (d) 2x+2
2. $(x^3+2x^2-2x-1)/(x-1)$
   (a) x^2+3x-1
   (b) x^2+5x+1
   (c) x^2+3x+1
   (d) x^2-3x+1
3. $(3x^2+3x-18)/(x-2)$
   (a) (3x+9)
   (b) (3x-9)
   (c) (9x-3)
   (d) (9x+3)
4. Divide $(x^2 + 5x - 8)$ by $(x + 3)$. What is the remainder?
   (a) 16
   (b) 12
   (c) -14
   (d) -16
5. Find the remainder when $x^4+x^3-2x^2+x+1$ is divided by x-1
   (a) 1
   (b) 5
   (c) 2
   (d) 3
6. $(2x^3 + 5x^2 + 9) \div (x + 3)$
   (a) $2x^2 - x + 3$
   (b) $2x^4 - x2 + 3x$
   (c) $2x^2 + 11x + 33$
   (d) $2x^2 + x + 3$
7. $(4x^2 - 24x + 35) \div (2x - 5)$
   (a) 2x – 7
   (b) 2x – 12
   (c) 2x + 12
   (d) 2x + 7
8. Divide using synthetic division$(2x^3 + 5x^2 + 9) \div (x + 3)$
   (a) $2x^2 - x + 3$
   (b) $2x^3 - x^2 + 3x$
   (c) $2x^2 + 11x + 33 + 108/x+3$
   (d) $2x^2 - 5x + 12$

9. Divide using synthetic division:$(x^3 - 11x^2 + 19x + 67) \div (x - 7)$
   (a) $x^2 - 4x - 9 + 4/(x-7)$
   (b) $x^2 - 4x - 10 + 2/(x-7)$
   (c) $x^2 - 4x - 12 + 5/(x-7)$
   (d) $x^2 - 4x - 12 + 1/(x-7)$
10. $(3x^3 + 5x - 1) \div (x + 1)$
   (a) $3x^3 - 3x^2 + 8x – 9$
   (b) $3x^2 - 3x + 8 - 9/(x+1)$
   (c) $3x^2 + 3x + 8 + 7/(x+1)$
   (d) $3x^3 + 3x^2 + 8x + 7$
11. $2x^3 - 5x^2 + 3x + 7 \div x - 2$
   (a) $2x^3 - x^2 + x + 9$
   (b) $2x^2 - x + 1$
   (c) $2x^2 - x + 1 + 9/x-2$
   (d) $2x^2 - 9x - 15 - 23/x-2$
12. $(x^3-3x^2-10x+24) \div (x+3)$
   (a) x^2-7
   (b) $x+5x-8$
   (c) x^2-6x+8
   (d) $x+9$
13. Give the correct name for $2x^3+5x$
   (a) Linear Binomial
   (b) Cubic Binomial
   (c) Quadratic Trinomial
   (d) Linear Trinomial
14. Divide:$(9x^2 + 6) / (3x)$
   (a) $3x + 6/3x$
   (b) $3x + 2$
   (c) $3 + 6/3x$
   (d) $3x + 6$
15. The area of a rectangular pool table is: $4x^4 + 24x^2 + 40x$. The length is 4x. What is the width?
   (a) $x^4 + 6x^2 + 10x$
   (b) $20x^2 + 36x$
   (c) $x^3 + 6x + 10$
   (d) $x^3 - 6x + 10$