



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Algebra and Geometry

Class: 7

Date: 04.07.20

Duration: 40 min

Worksheet Solutions 48

Full Marks: 15

ALGEBRAIC EXPRESSIONS

Choose the Correct options:

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

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: $(9x^2 + 6) \div (3x)$
- (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) $x^3 - 6x + 10$