ST. LAWRENCE HIGH SCHOOL
A Jesuit Christian Minority Institution
STUDY MATERIAL
CLASS –VI
Subject – Arithmetic – First Term

CHAPTER 3 – NEGATIVE NUMBERS – MULTIPLICATION & DIVISION   **Date - 08.05.20**

Multiplication and Division of Integers

MULTIPLICATION

RULE 1: The product of a positive integer and a negative integer is negative.

RULE 2: The product of two positive integers is positive.

RULE 3: The product of two negative integers is positive.

Examples:

Rule 1: 1. (+4) x (-2) = -8   2. (-2) x (+5) = -10

Rule 2: 1. (+6) x (+8) = +48   2. (+6) x (+2) = +12

Rule 3: 1. (-6) x (-8) = +48   2. (-2) x (-4) = +8

DIVISION

RULE 1: The quotient of a positive integer and a negative integer is negative.

RULE 2: The quotient of two positive integers is positive.

RULE 3: The quotient of two negative integers is positive.

Examples:

Rule 1: 1. (-8) / (+4) = -2   2. (-12) / (+6) = -2

Rule 2: 1. (+6) / (-3) = -2   2. (+24) / (-6) = -4

Rule 3. 1. (+9) / (+3) = +3   2. (+16) / (+4) = +4

Rule 4: 1. (-6) / (-2) = +3   2. (-42) / (-7) = +6

SUMMARY OF MULTIPLICATION AND DIVISION RULES

1. If the signs are different the answer is negative.
2. If the signs are alike the answer is positive.

Examples :

1.(− 2) × (− 3) × 6 × (− 1)

= (− 2) × (− 3) × 6 × (− 1)

= (2 × 3) × 6 × (− 1)

= 6 × 6 × (− 1)

= 36 × (− 1)

= − 36

2.Find the products of (-10) × 11

(-10) × 11

= - (10 × 11)

= - 110

3. Find the products of 5 × (-7)

5 × (-7)

= - (5 × 7)

= - 35

4.Find the products of (-12) × (-13) × (-5)

(- 12) × (- 13) × (-5)

= {(-12) × (-13)} × (-5)

= (12 × 13) × (-5)

= 156 × (-5)

= -(156 × 5)

= -780

5.Divide -117 by 13

-117 ÷ 13

= -117/13

= -9

6. Divide -98 by -14

-98 ÷ (-14)

= -98/-14

= 98/14

= 7

7. Divide 324 by -27

324 ÷ (-27)

= - 324/7

= -12

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