ODM EDUCATIONAL GROUP
Changing your Tomorrow

NATURAL NUMBERS AND WHOLE NUMBERS

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 05
CHAPTER NAME : NATURAL NUMBERS AND WHOLE NUMBERS
SUB TOPIC: Problem Solving Based on Properties of whole Numbers for Division
PERIOD NO: 5

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

Learning outcomes

- **Students will be able to apply properties of all operations on whole numbers.**
- **Students will be able to relate all properties of all operations on whole numbers.**

Previous knowledge Test

1. Fill in the blanks:

(i) 987 ÷ 1 = ……..

(ii) 0 ÷ 987 = ……..

(iii) 336 – (888 ÷ 888) = ……

(iv) (23 ÷ 23) – (437 ÷ 437) = ……..

Natural Numbers and Whole Numbers

Property	Addition	Subtraction	Multiplication	Division
Closure	Yes	No	Yes	No
Commutative	Yes	No	Yes	No
Associative	Yes	No	Yes	No

Evaluation Question

1. Find the difference between the largest number of four digits and the smallest number of six digits.
2. Find the difference between the smallest number of eight digits and the largest number of five digits.
3. The product of two numbers is 528. If the product of their unit's digits is 8 and the product of their ten's digits is 4; find the numbers.
4. Does there exist a number a such that a ÷ a = a?
5. Divide 5936 by 43 to find the quotient and remainder. Also, check your division by using the formula, dividend = divisor × quotient + remainder

Evaluation Question

1 Solution:

Largest number of 4 digits = 9999

Smallest number of 6 digits = 100000

Their difference = 100000 – 9999

= 90001

Therefore, the difference between the largest number of four digits and the smallest number of six digits = 90001

Evaluation Question

2 Solution:

Smallest number of eight digits = 10000000

Largest number of five digits = 99999

Their difference = 10000000 – 99999

= 9900001

Hence, the difference between the smallest number of eight digits and the largest number of five digits is 9900001

Evaluation Question

3 Solution:

Given the product of unit's digits = 8 i.e., 2 × 4

Hence, unit's digits are 2 and 4

So, the numbers are either 24 or 22

24 × 22 = 528

The required numbers are 24 and 22

4 Solution:

Yes and the number a is 1

a ÷ a = a

1 ÷ 1 = 1

Evaluation Question

5 Solution:

On dividing 5936 by divisor 43, we get the quotient 138 and the remainder 2

Verification:

Dividend = divisor × quotient + remainder

$5936 = 43 \times 138 + 2$

$5936 = 43 \times (100 + 38) + 2$

$= 4300 + 1634 + 2$

$= 5936$

Therefore, verified.

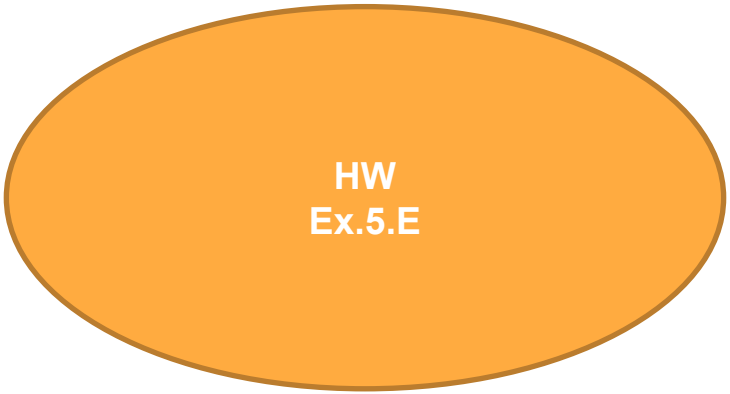
Additional Homework

1. By re-arranging the given numbers, evaluate :

2 x 487 x 50

25 x 444 x 4

225 x 20 x 50 x 4



ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP

ODM EDUCATIONAL GROUP
Changing your Tomorrow