SNBP International & Sr. Secondary School, Chikhali, Pune.
Affiliation No. 1130703
Academic session 2024-25
Notes-(Term-1)
Sub-math

Prepared by -Pranjali Patil   L-4 –Order of Operations

Pre- activity-Solve let's begin in the textbook.
Learning Ground
4.1 Order of operations(BDMAS)

Solve the following.

$36 \div 12 \div 3$

1

$43 - 7 - 5$

31

Number Talk

Solve the following.

$4 + 6 + 3$

13

$2 \times 3 \times 4$

24

Solve the following.

$32 \div (6 + 2) - 2$

2

$(58 + 14) \div 9 - 6$

2

Abstract stage

Abstract Stage

1 **Work out the following problems in you notebook.**

a $250 - (110 + 64)$ 76
b $121 \times 2 - 33 \div 11$ 239
c $200 - 12 \times 48 \div (4 \times 2)$ 128
d $180 \div 9 + 145 \div 5 - 6 \times 6 + 63 \div 21$ 16

2 **Betty and Veronica are working out the following calculation.**
$500 - 300 \div 20 + 30$
Betty says her answer is 40. Veronica says her answer is 515.
Whose answer is correct? Explain your reasoning.
Veronica's answer is correct. Because she used BDMAS.

3 Use brackets to give each question a value of 45.

a 9 × 4 + 1 = 45

9 × (4 + 1) = 45

b 67 − 11 × 2

67 − (11 × 2) = 45

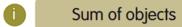**c** 4 × 5 − 5 × 3 = 45

(4 × 5 − 5) × 3 = 45

d 75 ÷ 5 × 3 = 45

(75 ÷ 5) × 3 = 45

4.2 Solving Word Problems Involving Operations

Abstract Stage

1 Match the scenarios to the correct operations that you will be using to work out your answer.

a To find the difference — ✕

b Finding total number of same size objects ✕ ÷

c How many fewer? — +

d Finding number of groups — −

i Sum of objects +

ii Sharing items equally −

iii Finding total number of different size objects ÷

iv Skipping numbers to complete the pattern ✕

2 Use bar model to solve the following questions in your notebook.

a On Friday, 43,935 people attended the Led Zeppelin concert at Wembley stadium. On Saturday, there were 2152 fewer people than that on Friday, and on Sunday, there were 9999 more people than that on Saturday. Work out the total number of people that attended the concert across three days.

Answer: 43,935 + 41,783 + 51,782 = 137,500

Therefore, the total number of people that attended the concert across three days was 137,500.

b Charlie earns ₹489 per hour. If he works for 7 hours on Wednesday, 10 hours on Friday, and 5 hours on Sunday, how much total money did he earn?

Answer: (489 × 7) + (489 × 10) + (489 × 5) = 10,758

Therefore, he earns a total of ₹10,758.

Blooming Questions

1 Analyse the statements below and write 'True' or 'False' for each statement. Give reasons in support of your answer..

a Joanna says, "The order of operation means that we can always do addition before subtraction".

Answer: False

b Mike says, "In a problem, if we have division and multiplication inside brackets, we will start with division".

Answer: False

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2 Use bar model to solve the following questions in your notebook.

a 1521 students are going out on a school trip to Disneyland. If each bus can ferry 39 students, how many buses will be needed to ferry all the students?

Answer: $1521 \div 39 = 39$

Therefore, 39 buses will be needed to ferry all the students.

b Wasim bought 96 chocolate boxes of equal price for ₹12,960. He still has ₹1015 left with him. Work out the cost of each chocolate box and the total money that Wasim had.

Answer: $12,960 \div 96 = 135$

Hence, the cost of each chocolate box is ₹135.

$12,960 + 1,015 = 13,975$

Therefore, the total money that Wasim had is ₹13,975.

c There are 2,11,356 bacteria in yoghurt at 6 am. The number of bacteria gets doubled every 2 hours. Work out the number of bacteria in the yoghurt at 10 am.

Answer: $2,11,356 \times 4 = 8,45,424$

Therefore, there are 8,45,424 bacteria in yogurt at 10 a.m.

3 Suppose you have a target of raising ₹1,00,000 for the 'Children in Need Organisation'. So far, you have got ₹255 from each student in your school. Work out how much money you still need to raise if the number of children in your school is 309.

Answer: $255 \times 309 = 78,795$

Hence, the total money raised till now is ₹78,795.

$1,00,000 - 78,795 = 21,205$

Therefore, we still need to raise ₹21,205.

4 A shoe factory warehouse has 5,17,143 pairs of shoes for males, 9,09,652 pairs of shoes for females, and the remaining pairs of shoes for children. Work out how many pairs of shoes are in the warehouse for children if the total number of pairs in the warehouse is 20,00,000.

Answer: 20,00,000 – (5,17,143 + 9,09,652) = 5,73,205

Therefore, 5,73,205 pairs of shoes are in the warehouse for children.

Post –activity- Use the term add, subtract, multiply and divide to prepare a 'Good Habits Book '

for   home.

S.Teacher   H.O.D.   Co-Ordinator   Principal