Worksheet: - 10 Subject: - Mathematics Class:-VI Teacher:-Mrs. Poonam Sunil
Name:-_____ Class & Sec.:-_____ Roll No.:-___ Date:-20/4/2021

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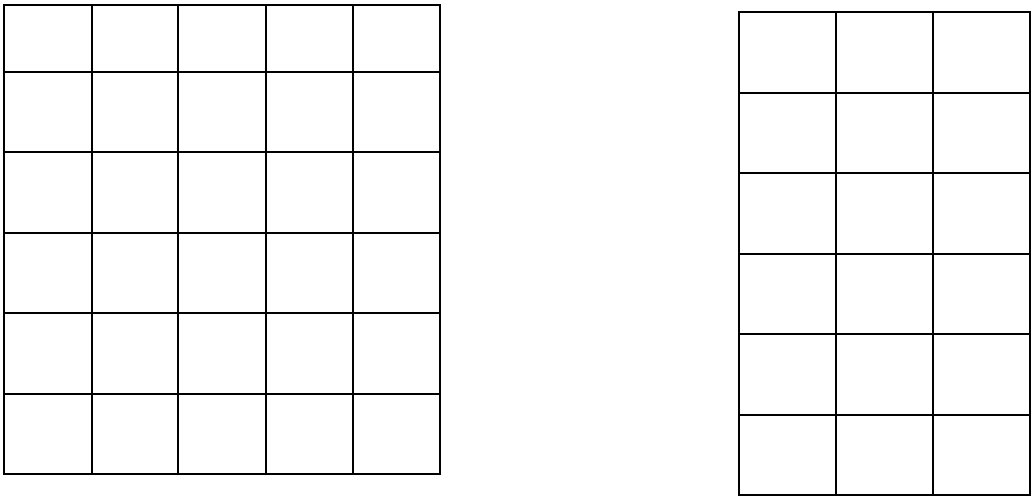
Good Morning Students!

Today we are going to do Properties of Distributivity of multiplication over addition. (Take Graph paper)

Activity:-

Cut the sheet into two pieces of sizes - 6 cm by 5 cm and 6cm by 3 cm as shown in the figure.



Number of squares:- It is 6x5, Number of squares. It is 6x3!

In all, how many squares are in both the pieces?

Is it (6x5) + (6x3) it mean that 6 x 8.

This show that 6 x(5+3)= (6 x5)+(6 x3)?

This is known as distributivity of multiplication over addition:-

Examples: The school canteen charges rs.20 for lunch and rs. 4 for milk for each day. How much money do you spend in 5 days on these things?

Sol - This can be done by two methods.

Method I:-

Find the amount for lunch for 5 days. ,

Find the amount for milk for 5 days. ,

Then add I,e.

Cost of lunch= 5x20 = rs. 100

Cost of milk = 5x4 = rs. 20

Total cost = 2rs.(100+20)=rs. 120

Method II:-

Cost of (lunch + milk) for one day – rs. (20+4)

Cost of for 5 days – rs.5 x (20 + 4) = rs. 5x24=rs.120

This example shows that.

5 x (20+4) = (5x20) + (5 x 4)

This is the principle of distributivity of multiplication over addition.

Example 6:- Find 12x35 using distributivity.

Solution :

12x35 – 12 x (30 x 5)

= 12x30+ 12x5

=360+ 60 =420

Example 7 :- Simplify : 126 x 55 +126 x 45

Solution – 126 x 55+126x45

= 126x (55+45)

= 126 x 100

=12600 Ans.

Identity (for addition and multiplication)

The number zero has a special role in addition

7+0=7
5+0=5
0+15=15
0+……=……

When you add zero to any whole number, the number will remain same, We will get the same number

(Zero is called an identity for addition of whole numbers or additive identity for whole numbers)

(Zero has a special role in multiplications. Any numbers when multiplied by zero becomes zero.)

For example:-

5×1=5
7×1=7
1×12=12
1×100=100
1×____= _____

1 is the identity for multiplication for whole numbers or multiplicative identity for whole numbers

REMEMBER:

PROPERTIES OF WHOLE NUMBERS.

1) **Closure property**
2) **Commutativity of Addition and Multiplication**

3) **Associativity of addition and multiplication**

4) **Distributivity of multiplication over Addition.**

5) **Identity (for Addition and Multiplication)**

Note:- Arrange one Graph paper next time!

Good afternoon children! Today's class is over.

Next time we will do Exercise 2.2

(Stay home and Stay Safe) Good Bye!