Rosary School \ Marj Elhamam

Name : …… Date : / 9 / 2025

Subject: Study sheet (2) Grade : 5 ( )

2.A Count On and Back

- **Count on** in math is a mental math strategy used to add numbers.
  (to move forward in the number line)

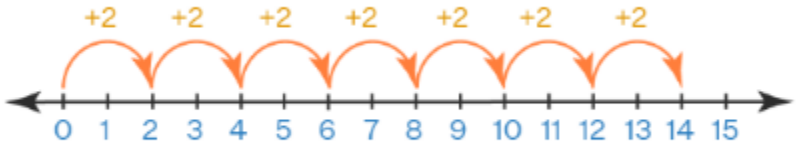
Examples :

- **Omar wants to save money to buy a toy. He starts with 0.5 JOD in his " piggy bank" and adds 0.5 JOD every day. On the first day, he has 0.5 JOD. The next day, 1.0 JOD. Then 1.5 JOD, 2.0 JOD, and so on. Each day he counts on by adding 0.5 JOD**".

  Sequence: 0.5→ 1.0→ 1.5 → 2.0 → 2.5

- **Sara walks every morning. On Monday, she walks 0.3 km. Each day she walks 0.2 km more than the previous day. Tuesday: 1.0 km , Wednesday: 1.5 km, Thursday: 2.0 km. She is counting on the distance in decimals .**

  Sequence: 0.3→ 0.5→ 0.7→ 0.9→ 1.1



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- **start at 2.5 ,Count on by 0.1 = 2.5 ,2.6 ,2.7 ,2.8 ,…….**

❖ **Count back** in math is a mental math strategy used to subtract numbers (to move backward in the number line).

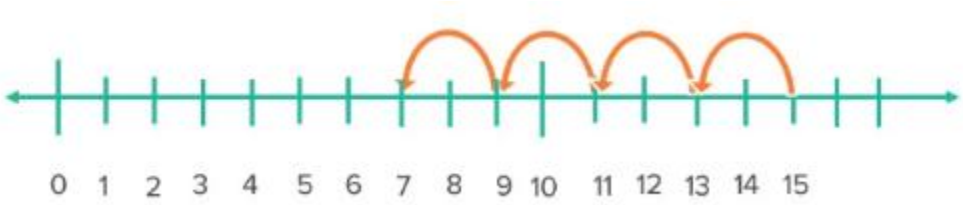
Examples :

- **Sara has 5 JD on her phone . Each call costs 0.5 JD . After the first call : 4.5 JD left , second call : 4.0 JD , third call : 3.5 JD , fourth call : 3.0 JD . She is counting back in decimals to know her remaining balance .**

  Sequence : 5.0 →4.5→4.0→3.5→3.0→2.5 .

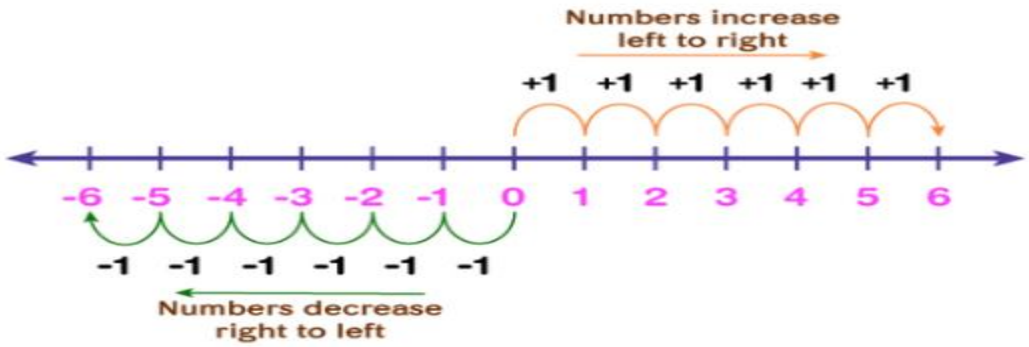
- **A tablet has 10 hours of battery. Each hour used decreases the battery by 0.5 hours. After the first hour: 9.5 hours left, then 9.0, 8.5, 8.0, 7.5, and so on. Counting back in decimals helps track battery life**".

  Sequence: 10.0→ 9.5→ 9.0→ 8.5→ 8.0 → 7.5 .



- **Start at 5.0 and Count back by 0.2 = 5.0 ,4.8 ,4.6 ,4.4 ,…….**

Counting On and Back



2.B Use the Order of Operations

- The **order of operations** is a rule that tells the correct sequence of steps for evaluating a math expression. We can remember the order using **BIDMAS**: **Brackets, Indices, Multiplication and Division (from left to right), Addition and Subtraction (from left to right)**.

The priority of operations gives the order in which a calculation should be .worked out

.**Brackets** - any calculation in brackets should be worked out first

Multiplication and Division - these are next, if both multiplication and division .occur, work left to right

Addition and Subtraction - this is calculated last. If both addition and subtraction occur, work left to right

The laws of arithmetics

Associative law: when more than two numbers are added or multiplied, you can do the calculations in any order. For example:

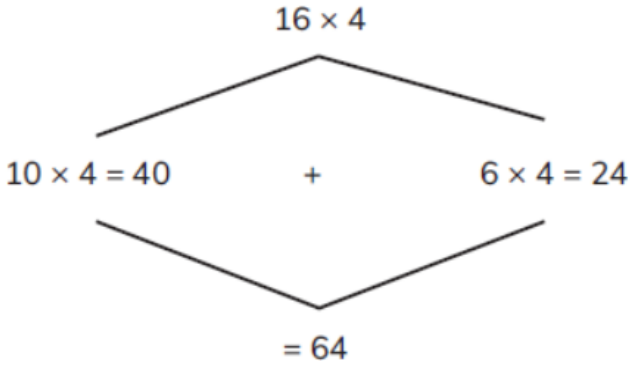
$8 + 3 + 4 = 8 + 3 + 4$ $\quad$ $5 \times 2 \times 3 = 5 \times 2 \times 3$

$11 + 4 = 8 + 7$ $\quad$ $10 \times 3 = 5 \times 6$

$15 = 15$ $\quad$ $30 = 30$

Commutative law: when two numbers are added or multiplied, you can do the calculation in any order. For example:
$7 + 4 = 4 + 7 = 11$ and $7 \times 5 = 5 \times 7 = 35$

Distributive law: when two numbers are multiplied, you can break the multiplication fact into a sum of two other multiplication facts. For example:



2.C Use Brackets

Why do we use brackets ?

Brackets show us which part of the problem we must solve first.

They help us avoid mistakes and follow the order of operations.

Always calculate inside ( ) brackets first

If there are brackets inside brackets, solve the innermost first

Then continue with the rest of the operations

Remember :

Brackets change the result if you don't solve them first .

Work step by step → inside → outside