

Math Booster

How does it help ?

The first two math concepts are Size
& Value, and Working memory

Modules for Math

Created by J.P Das, Ph.D., University
of Alberta

What is Modules for Math?

An intervention program which uses **cognitive training techniques that target basic skills** needed for mathematic success.

It provides an alternative route toward the development of basic math skills.

It designed for children in kindergarten through grade 2.

Who can use this intervention?

- Psychologists (educational and school)
- Teachers
- Parents/ guardians who have some background in psychology or education

How is it administered?

- As an intervention: one-to-one or in a group of no more than 10 children
- To supplement curriculum in regular classrooms of up to 30 children
- As a continuing home activity

Each module includes...

- An introduction and background to the central focus of the module
- Items for training cognitive operations
- Small group activities, which may also be administered as partner or one-on-one
- Supplementary lessons which have been linked to Alberta Education Mathematics Program of Studies (kindergarten to Grade 2)

10 lessons

SHIFTING PATTERNS

LEARNING ABOUT SIZE AND VALUE
WITH SHAPES

- **Targeted math skill: size and value**
- *Value* refers to the numeric value of a number. The size that number is written does not necessarily correspond with its value. For example:
 - 4 and **4** these two numbers have different sizes but have the same value of 4.
- **Focus: shifting/ task switching**
- One of the three components of Executive Functioning (or planning) is the ability for *shifting*.

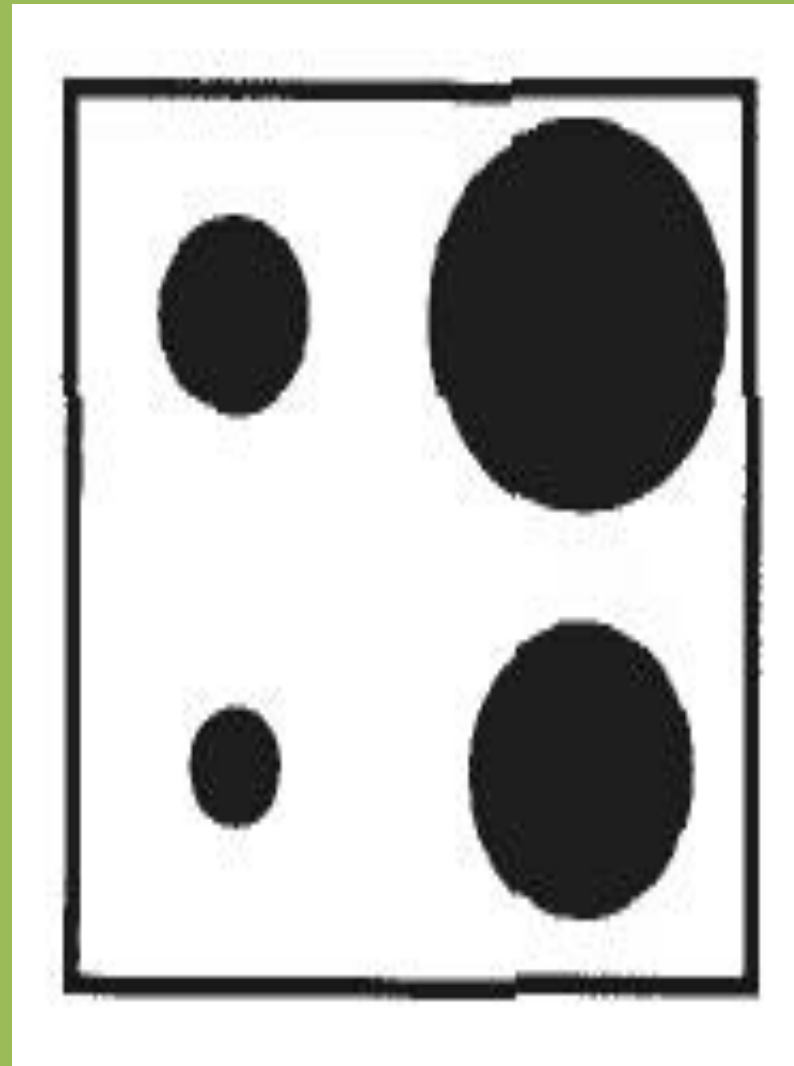
Training activities

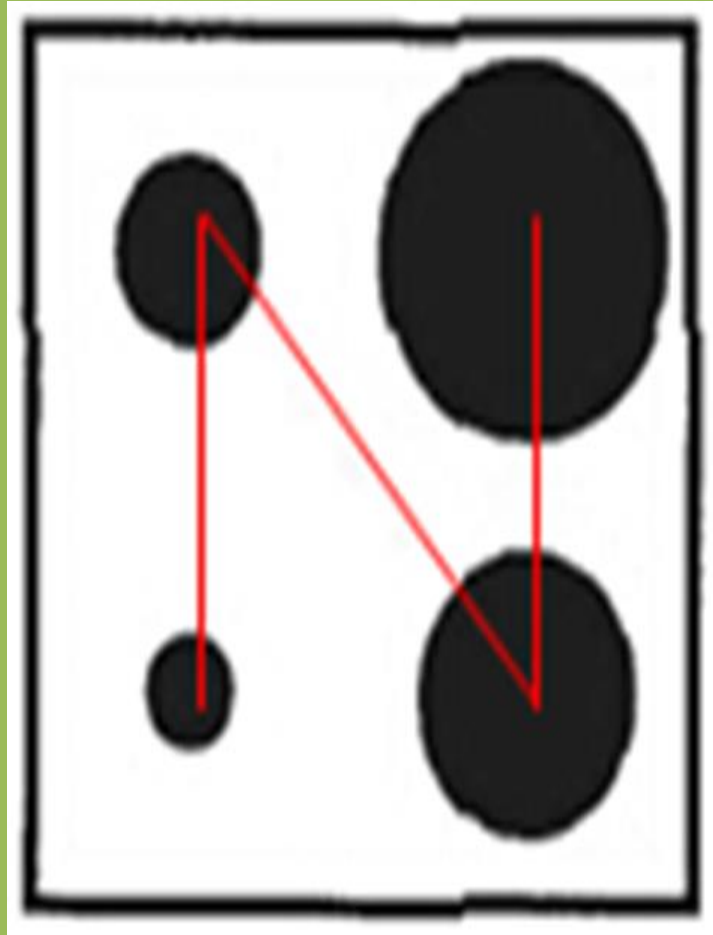
Step one: size and value with shapes

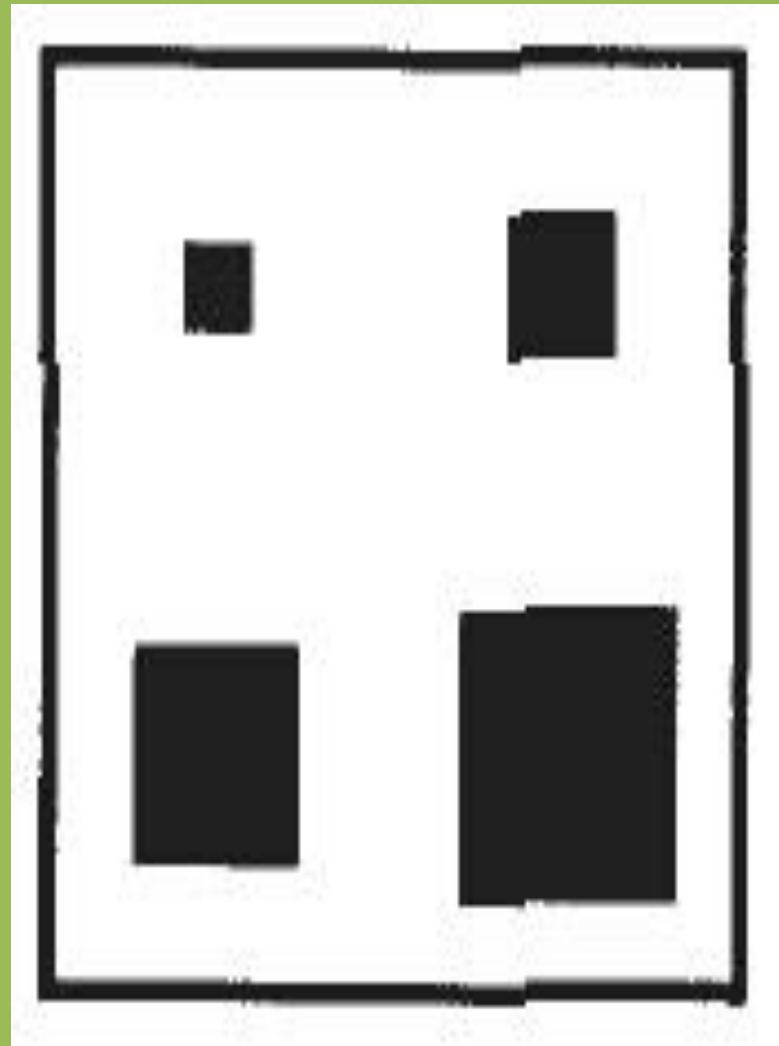
Draw a line connecting the shapes within a box from smallest to largest

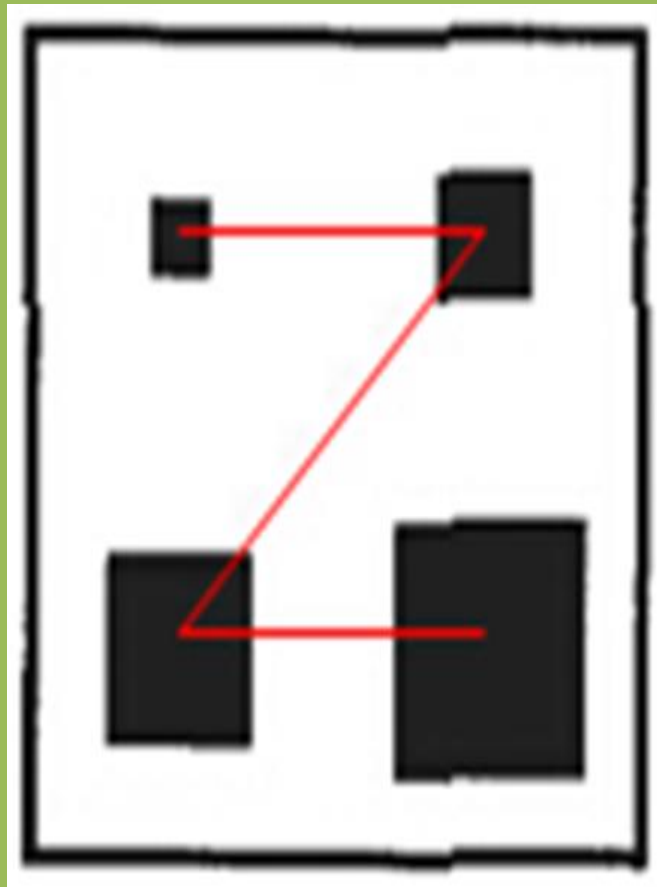
Requires the ability to shift response from a Z to N shape, or N to Z shape, improving shifting (a component of executive function)

Let's try it...



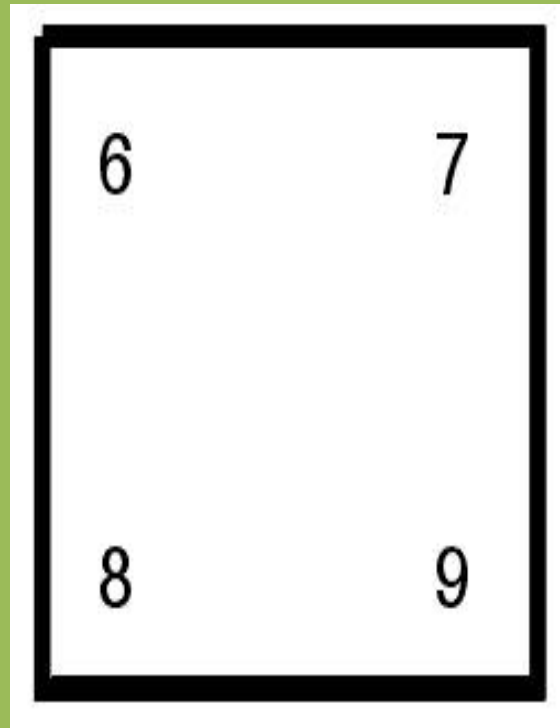


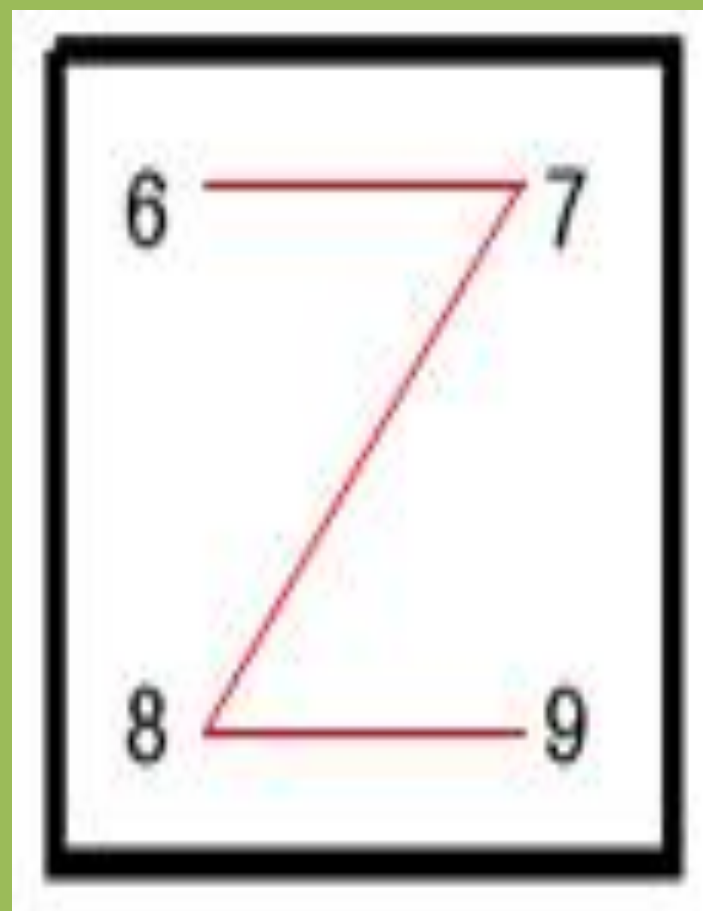




- **Step two: size and value with numbers**
- Draw a line connecting a series of numbers from smallest to largest. Let's try it...

-





Modules for Math

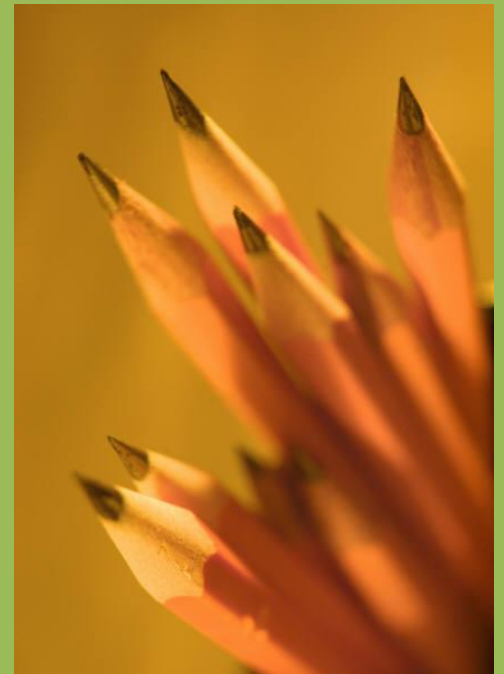
Shifting Patterns Grade 2: Lesson 7

We are learning to...

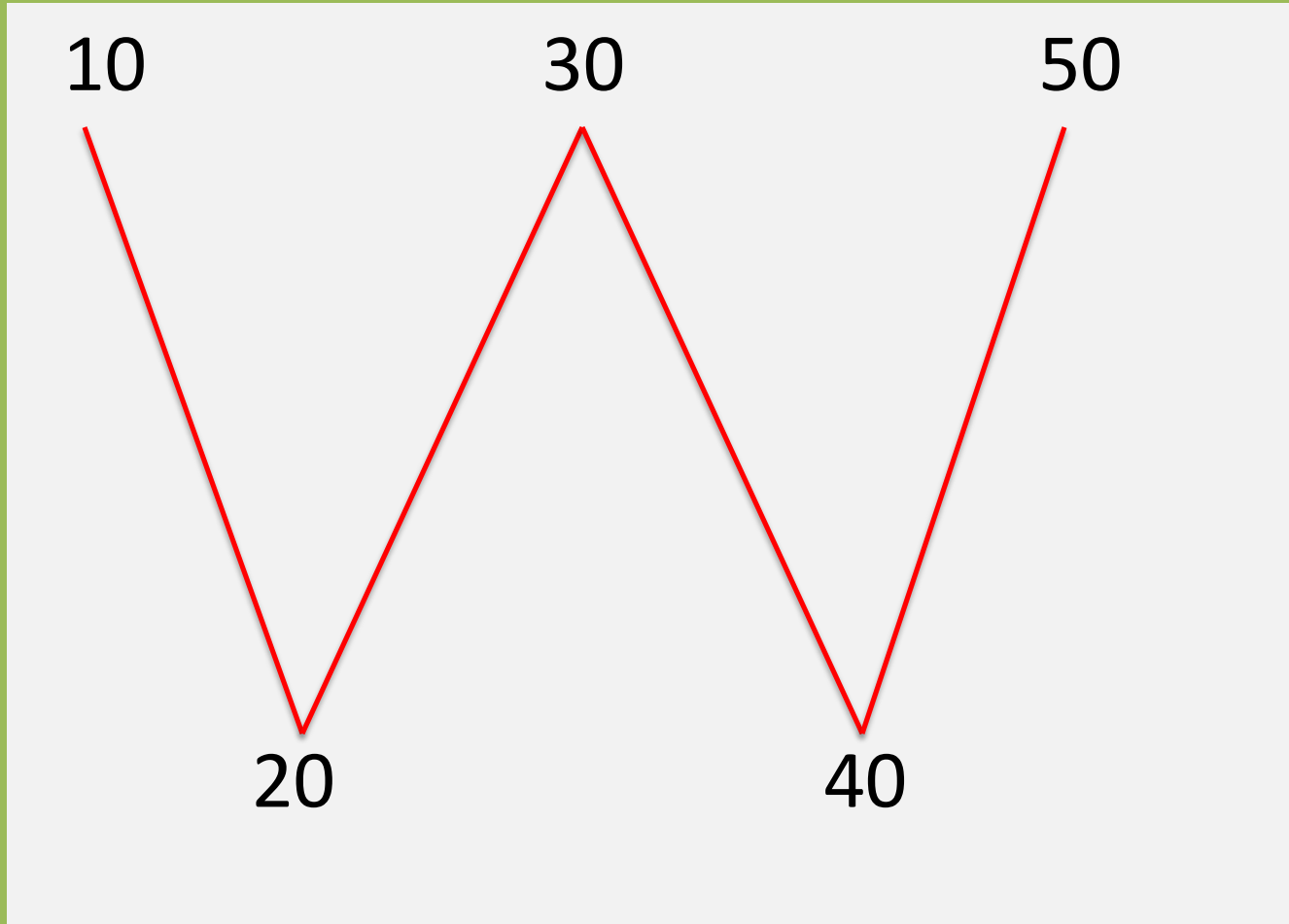
show our understanding of addition
and subtraction using objects,
pictures and numbers

Everyone will need...

- Paper and pencil
- A pattern placemat
 - Base 10 blocks
 - Number cards

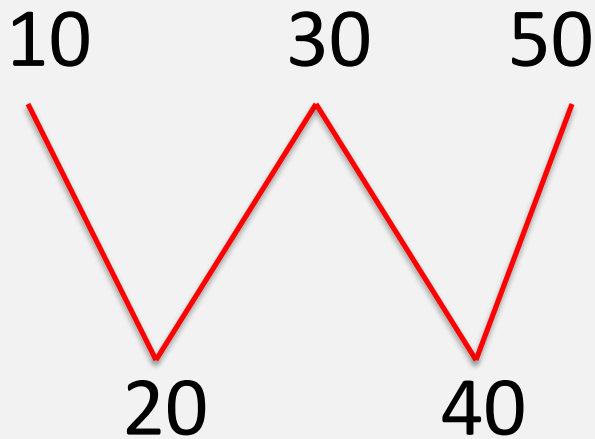


Last time, we made
Ms and Ws!

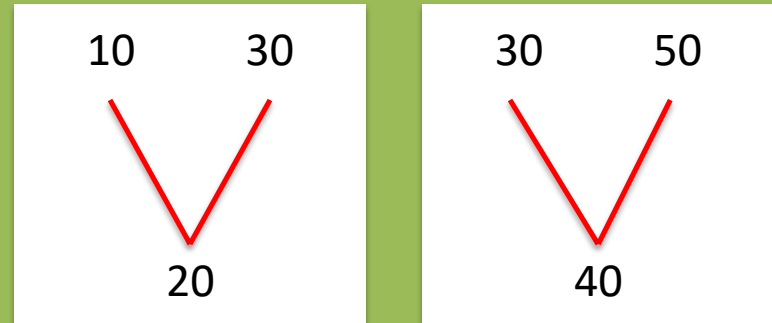


Today, we are going to try to make new patterns using number cards. For example:

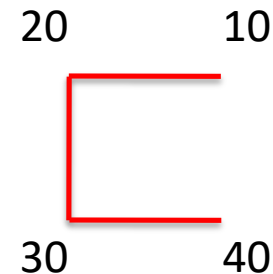
Instead of a “W” pattern...



...we could split it into two “V”s...

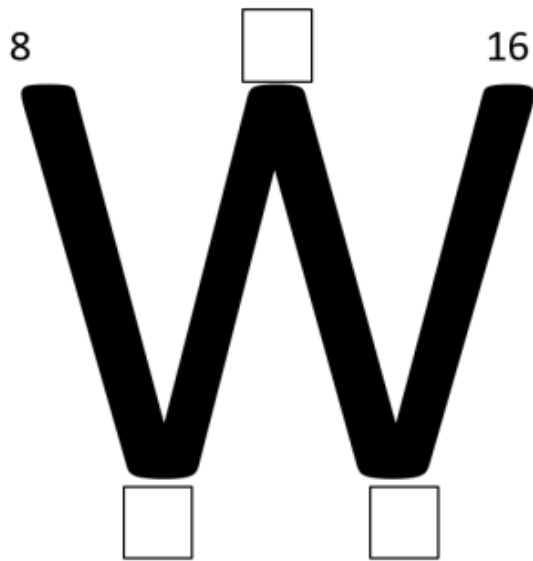


...or use one less number and make a “C”!

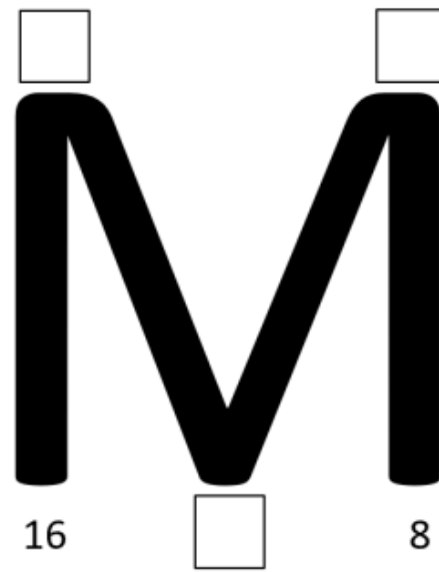




Fill the boxes starting from 8 with addition of 2



Fill the boxes starting from 16 with subtraction of 2



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