Make sense of problems and persevere in solving them. Mathematical Practice 1

When given a problem, I can make a plan, carry out my plan, and check my answer.

BEFORE...

Think about the problem.

Ask myself, "Which strategy will I use?"

Make a **plan** to solve the problem.

DURING...

Stick to it!

Ask myself, "Does this make sense?"

Change my plan if it isn't working out.

AFTER...

CHECK my work.

☑

Ask myself, "Is there another way to solve the problem?"

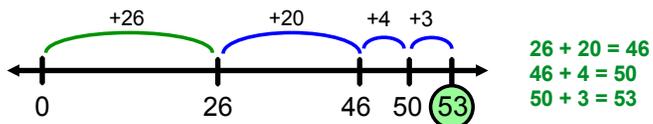# Reason abstractly and quantitatively.

I can use numbers and words to help me make sense of problems.
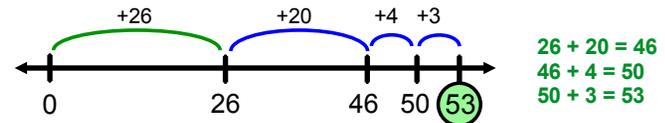
Numbers to Words

$$26 + 27 = 53$$

⬇

There are 26 boys and 27 girls on the playground. How many children are on the playground?

+26   +20   +4 +3

0   26   46 50 53

26 + 20 = 46
46 + 4 = 50
50 + 3 = 53

Words to Numbers

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$$26 + 27 = 53$$

Construct viable arguments and critique the reasoning of others. Mathematical Practice 3

I can explain my thinking and respond to the mathematical thinking of others.

I can **explain my strategy** using...

- objects, drawings, and actions

- examples and non-examples

- contexts

I can **compare strategies** with others by...

- listening

- asking useful questions

- understanding mathematical connections between strategies

Model with mathematics.

I can recognize math in everyday life and use math I know to solve problems.

I can use....

I can use take-away to find the difference between the number of crayons Jill and Rob have.

(Words)

46
- 23
23

(Symbols)

Rob has 23 crayons. Jill has 46 crayons. How many more crayons does Jill have than Rob?

(Objects)

(Pictures)

Difference of 23 crayons

Rob's Crayons

Jill's Crayons

0   10   20   23   30   40   46   50
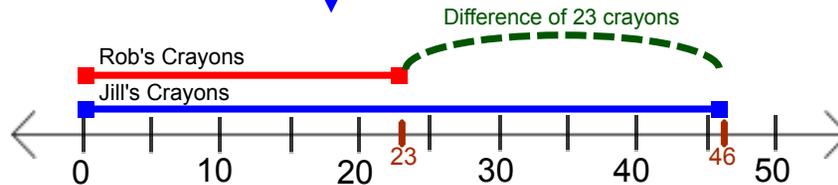
...to solve everyday problems.
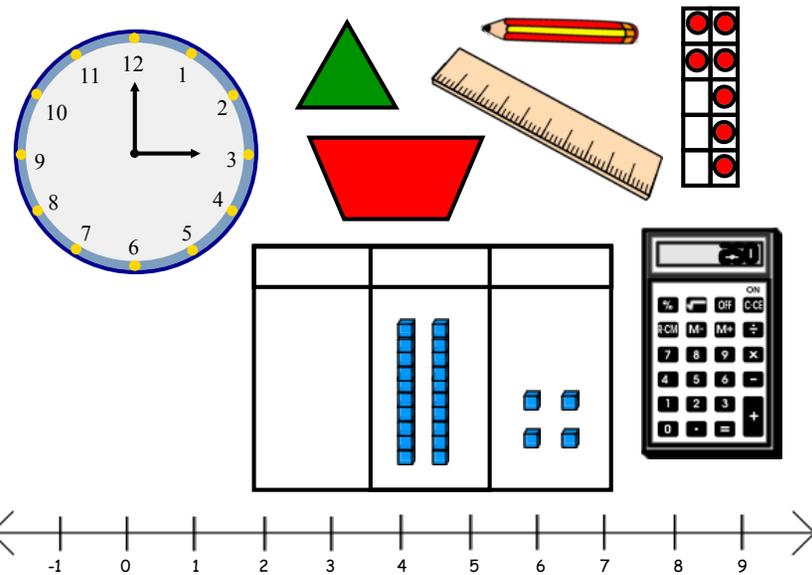
Use appropriate tools strategically.

Mathematical Practice 5

I can use certain tools to help me explore and deepen my math understanding.

Toolbox

I have a math toolbox.

- I know *HOW* and *WHEN* to use math tools.

- I can reason: *"Did the tool I used give me an answer that makes sense?"*

Attend to precision.

I can be precise when solving problems and clear when I share my ideas.

Careful and clear mathematicians use...

symbols

PLUS: EQUAL:

join   the same as

$$23¢ + 52¢ = 75¢$$

units of measure:
CENTS

- math vocabulary
- symbols that have meaning
- context labels
- units of measure
- calculations that are accurate and efficient
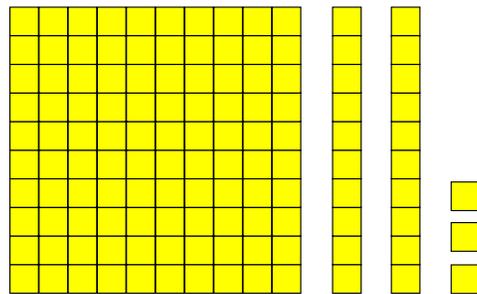
Look for and make use of structure.

I can see and understand how numbers and shapes are organized and put together as parts and wholes.

Numbers

For example:

123
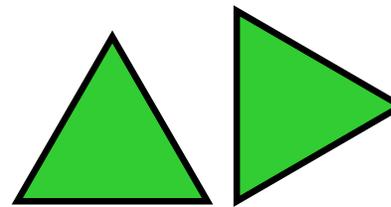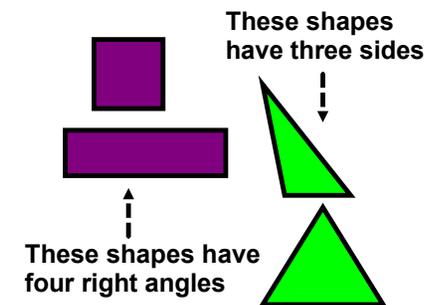**1 hundred, 2 tens, and 3 ones**

Base Ten System

Shapes

For example:

These are the same!

These shapes have three sides

These shapes have four right angles

Orientation

Attributes

Look for and express regularity in repeated reasoning. Mathematical Practice 8
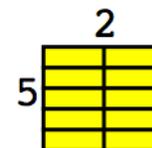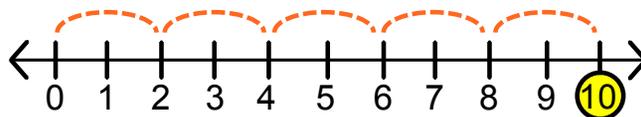
I can notice when calculations are repeated.

$$5 \times 2 = 10$$

$2 + 2 + 2 + 2 + 2 = 10$

I am adding 2 five times.

I am counting rows with 2 in each row five times.

I am making 5 hops of 2 on the number line.