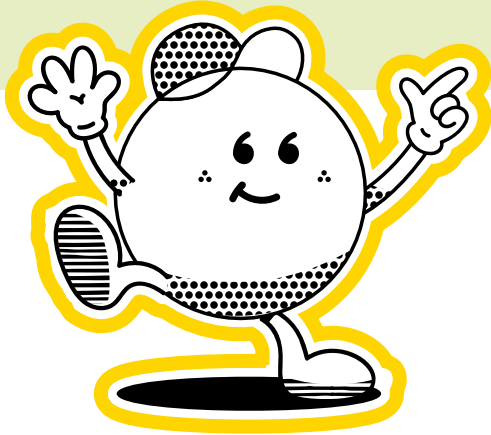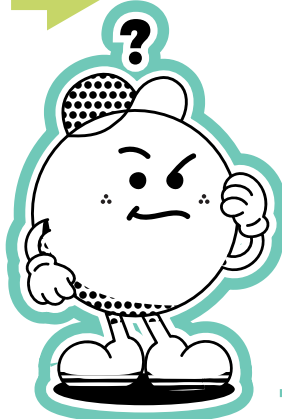# Make Sense of Problems and Persevere in Solving Them.

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.
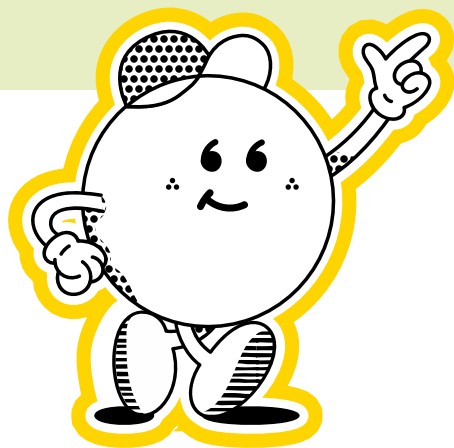
DURING

Stick to it! Ask myself, "Does this make sense?" Change my plan if it isn't working out.

AFTER

CHECK my work. Is there another way to solve the problem?

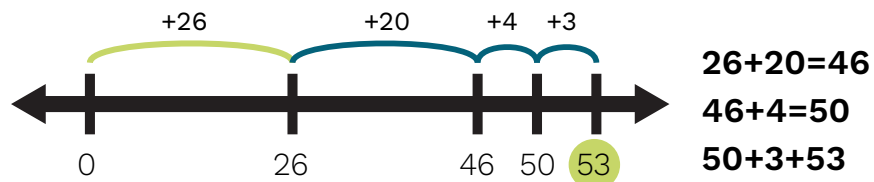# Reason Abstractly and Quantitatively.

I can use numbers and words to help me make sense of problems.
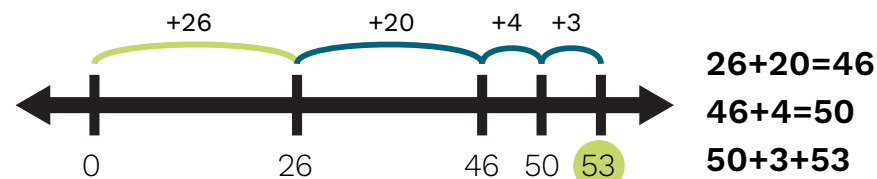
NUMBERS TO WORDS

26+27=53

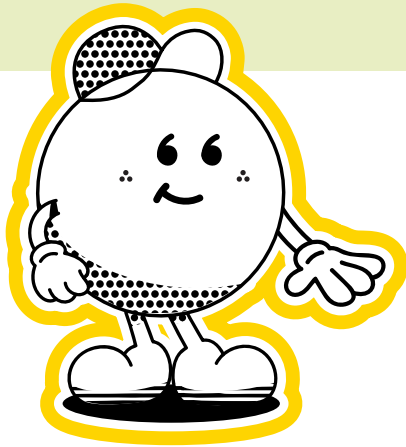There are 26 boys and 27 girls on the playground. How many children are on the playground?

+26   +20   +4   +3

0   26   46 50 53

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

WORDS TO NUMBERS

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

+26   +20   +4   +3

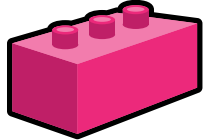0   26   46 50 53

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

26+27=53

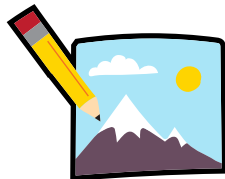# Construct Viable Arguments and Critique the Reasoning of Others.

I can explain my thinking and consider the mathematical thinking of others.
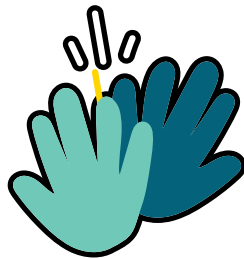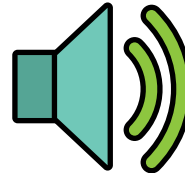
I can explain my thinking using...

Objects

Drawings

Actions

examples and non-examples & contexts

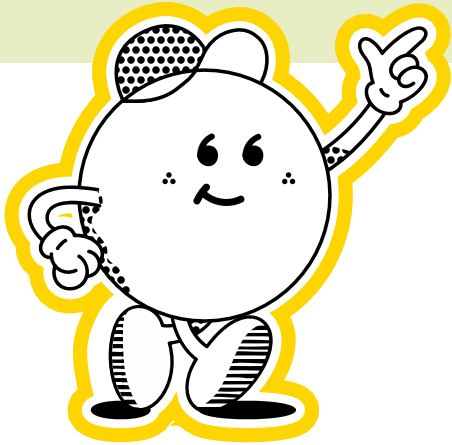## I can compare my Strategy with others by...

Listening

Asking Questions

Understanding mathematical connections between strategies
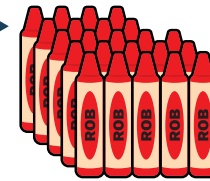
Model with Mathematics.

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

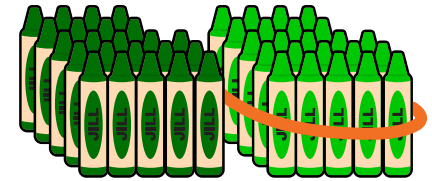I can compare to find how many more crayons Jill has than Rob.

Words

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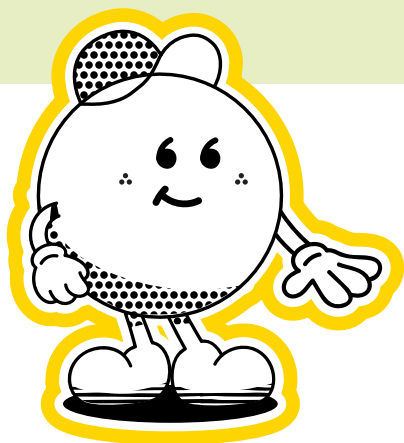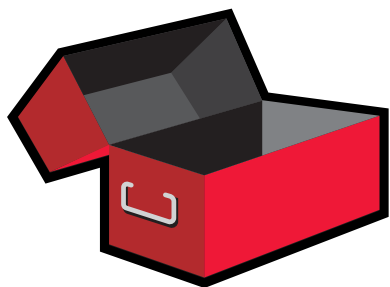
Rob's

Jill's
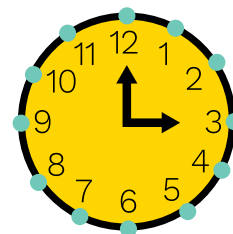
Objects

Rob's Crayons

Jill's Crayons

0   10   20   30   40   50
        23   46

Pictures

$46-23=23$

Symbols
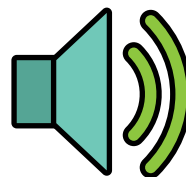
Use Appropriate Tools Strategically.

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

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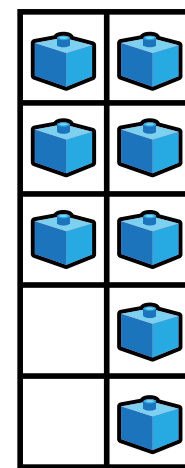
- I know **HOW** and **WHEN** to use math tools.

- I can reason: "Did the tool I used give me an answer that makes sense?"
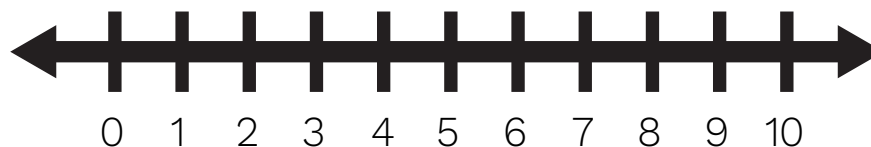
Attend to Precision.
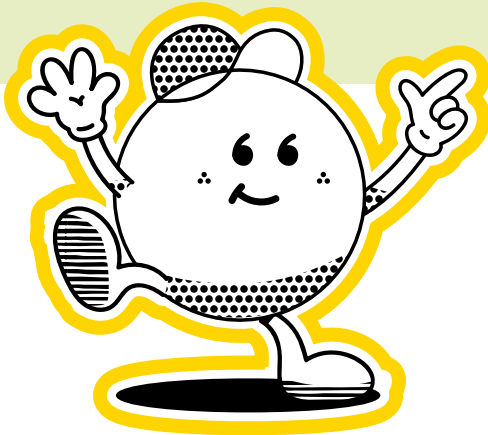
I can be precise when solving problems and clear when I share my ideas.

Careful and clear mathematicians use...

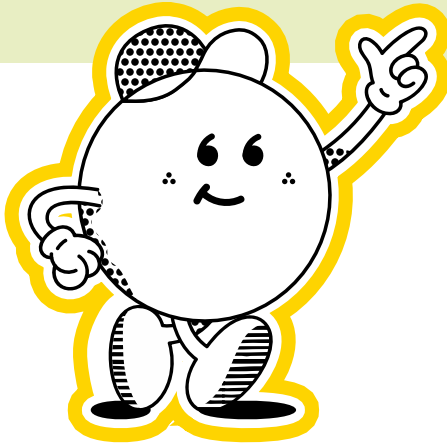**PLUS:**
Join

EQUAL:
The same as

Symbols
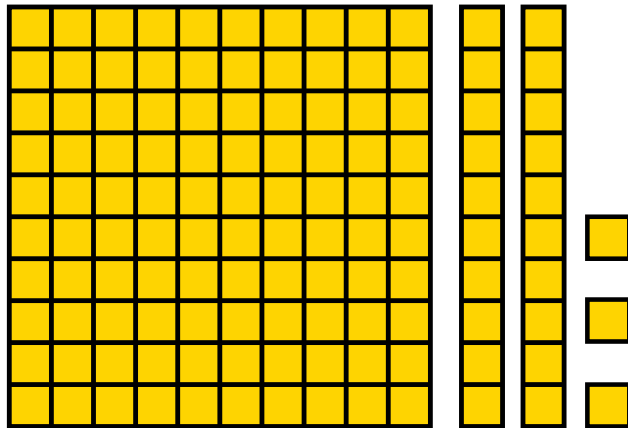
23¢ + 52¢ = 75¢

units of measure: CENTS

- math vocabulary

- symbols that have meaning

- context labels

- units of measure

- calculations that are accurate and efficient
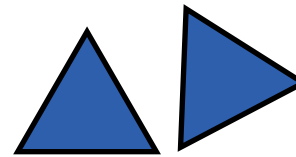
Look for and Make Use of Structure.

I can see and understand how numbers and shapes are put together as parts and wholes.
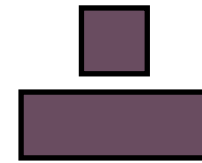
Numbers
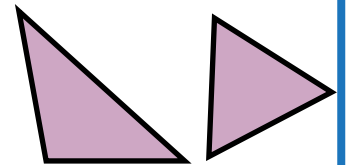## Base Ten System

123. 1 hundred, 2 tens, and 3 ones

Shapes

These are the same!

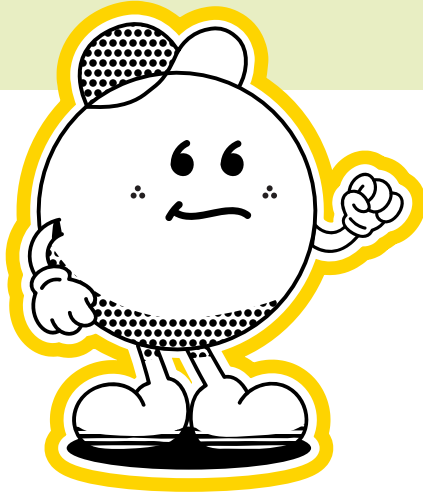These shapes have four right angles

These shapes have three sides

Orientation
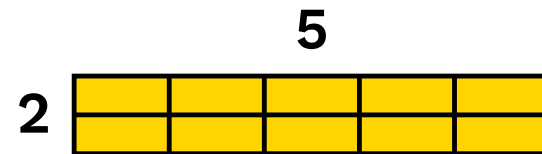
Attributes

Look for and Express Regularity in Repeated Reasoning.
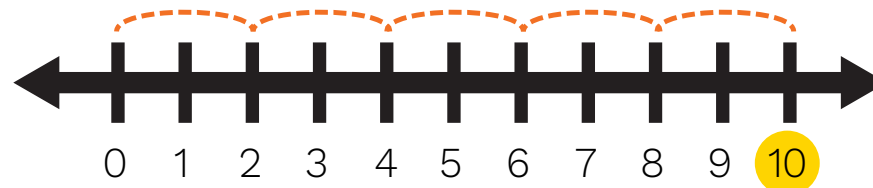
I can notice when calculations are repeated.

5x2=10

2+2+2+2+2=10

I am adding 2 five times

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

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