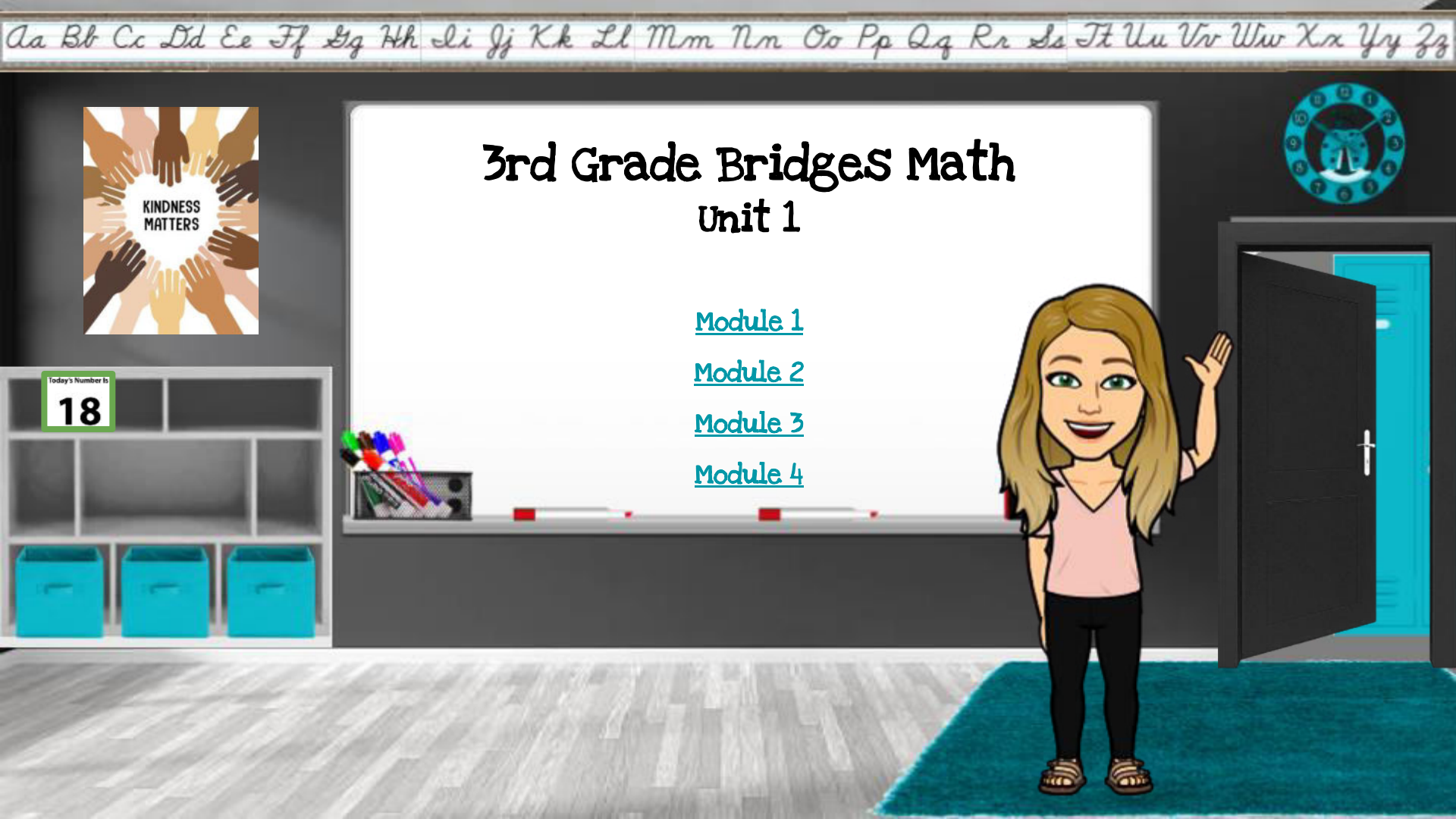

KINDNESS MATTERS
Today's Number Is
18
3rd Grade Bridges Math
Unit 1
Module 1
Module 2
Module 3
Module 4

Module 1

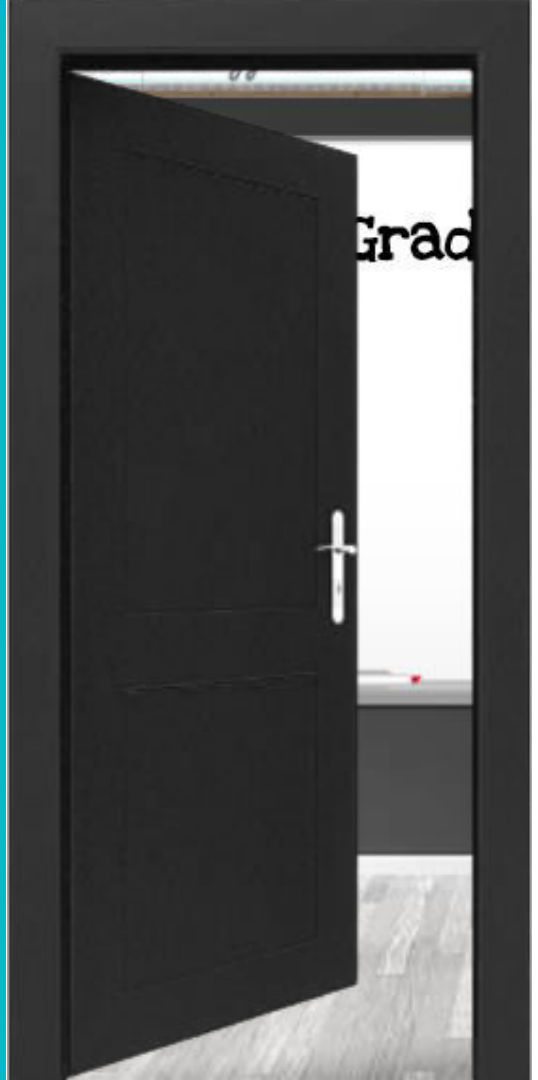
Session 1
Making people glyphs

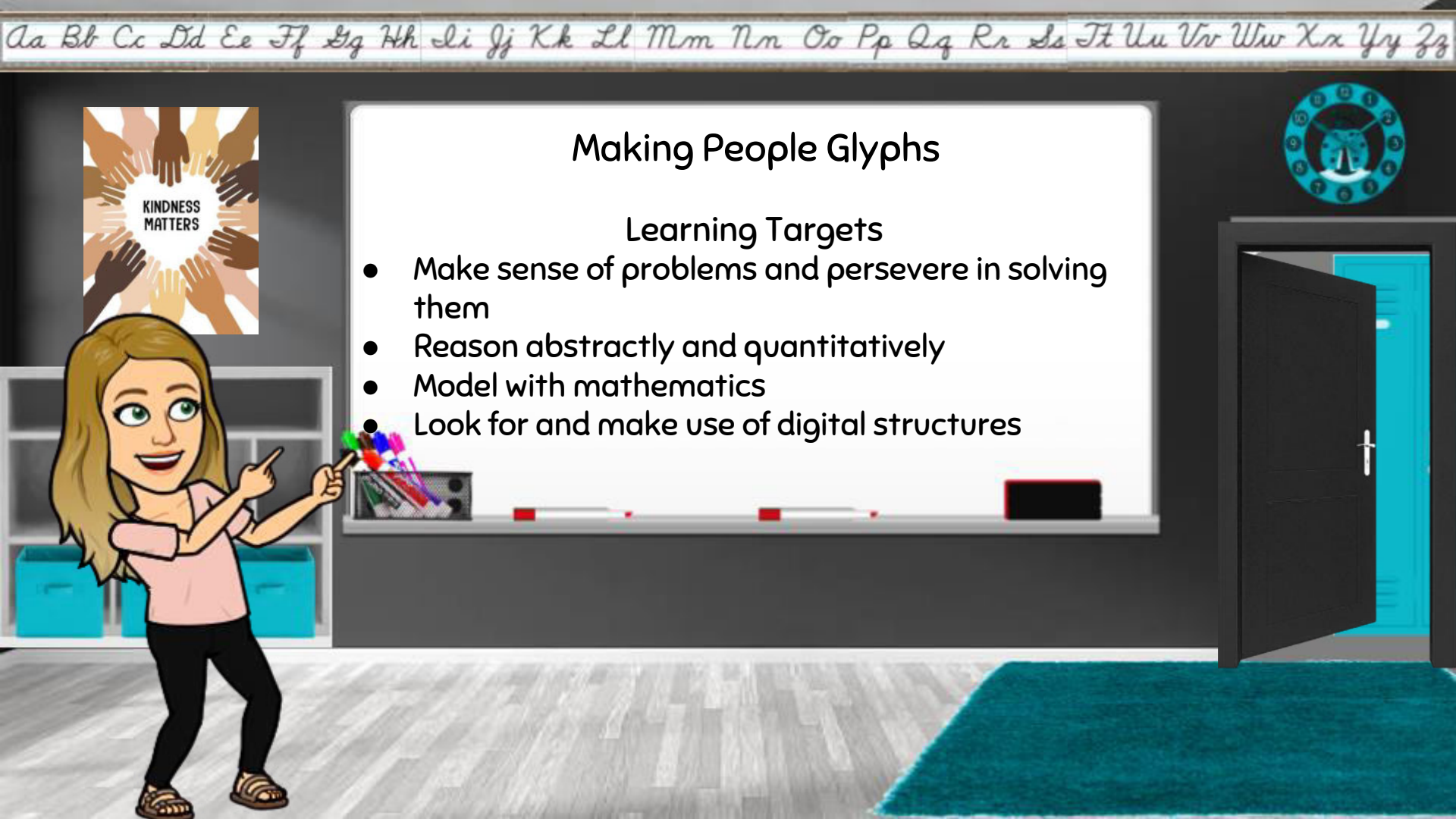
Session 2
Sorting and classifying glyphs

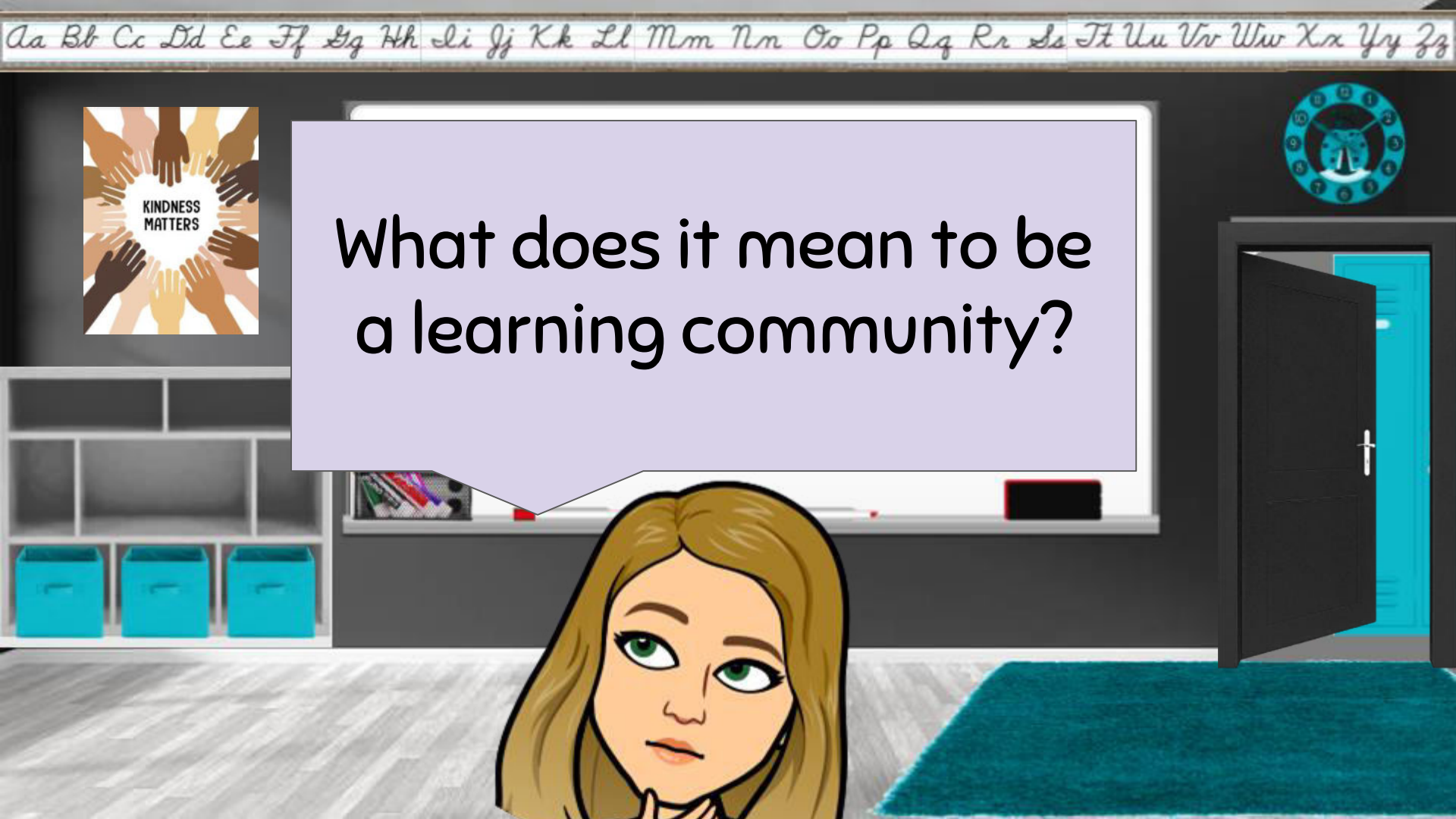
Session 3
Number Rack Review

Session 4
The Addition Table

Session 5
The Addition Table pt.2



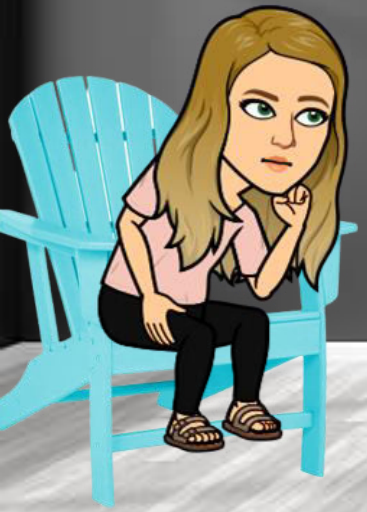

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Making People Glyphs
Learning Targets
Make sense of problems and persevere in solving them
Reason abstractly and quantitatively
Model with mathematics
Look for and make use of digital structures


KINDNESS
MATTERS
What does it mean to be a learning community?

A community is a group of people who share something in common. Families, classrooms, schools, neighborhoods, and cities are all examples of communities.

Our class is a learning community. In a learning community, everyone can learn more by sharing ideas and materials, listening to each other, and showing respect for people and things.

- How would you like to be treated in the classroom?
- What do you need to be able to learn in the classroom?
- What can other members of the class do to help you learn?
- What can you do to help others learn?
- What can you do to show respect for other people's ideas?

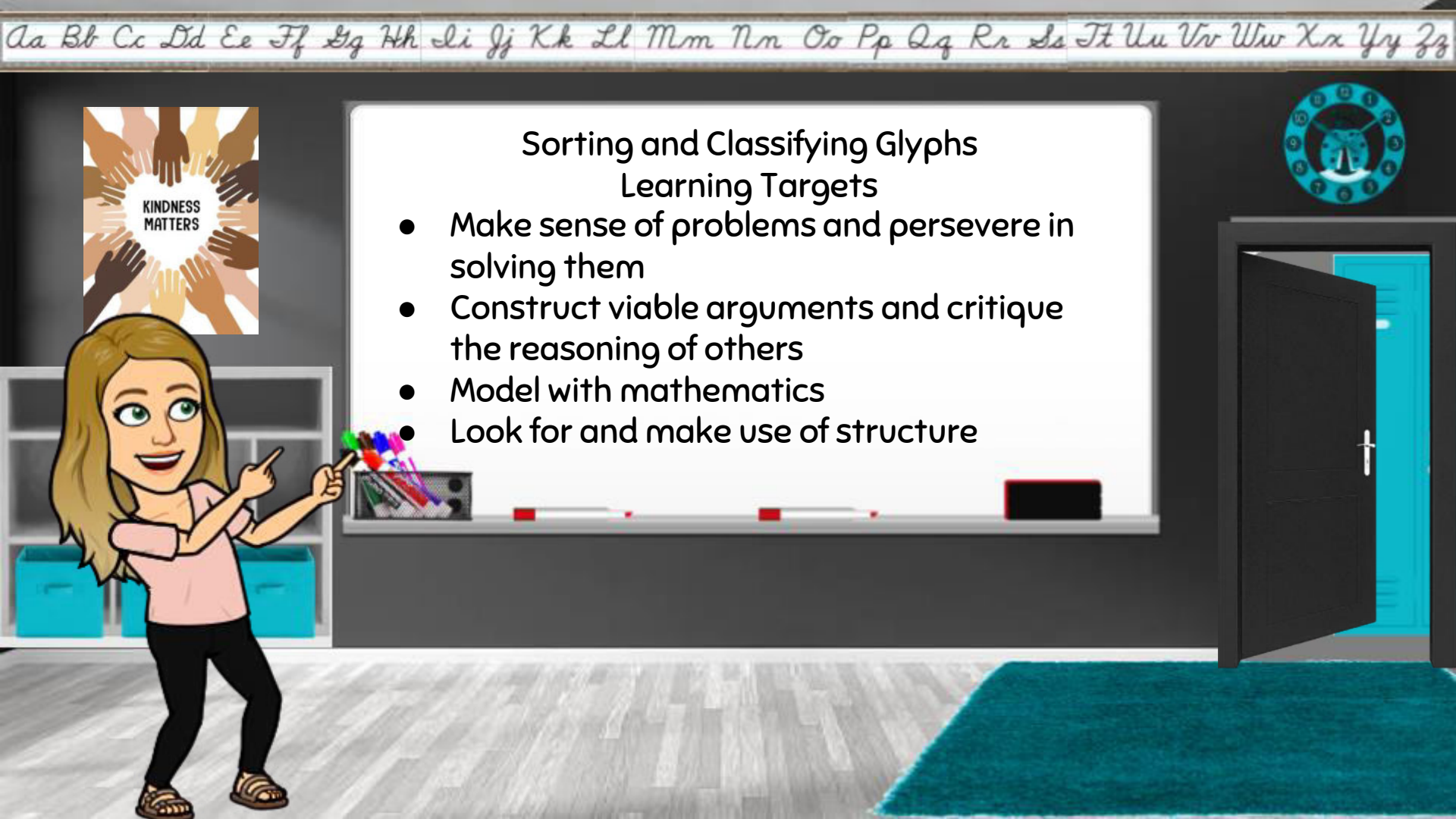



Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Today we will make glyphs...
What is a glyph?
A glyph is a simple picture or figure whose features represent information about a subject.

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

People Glyph Legend

FEATURE	SHOWS	EXAMPLES
Hat	What group size you prefer	red = Alone; yellow = With 1 person; brown = With small groups
Glasses	How you like to record mathematical thinking	Pictures; Numbers; Words
Nose	Your favorite time of day	Morning; Afternoon; Evening
Mouth	How you feel about math	Love math; Like math


Sorting and Classifying Glyphs
Learning Targets
Make sense of problems and persevere in solving them
Construct viable arguments and critique the reasoning of others
Model with mathematics
Look for and make use of structure
KINDNESS MATTERS

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

People Glyph Legend

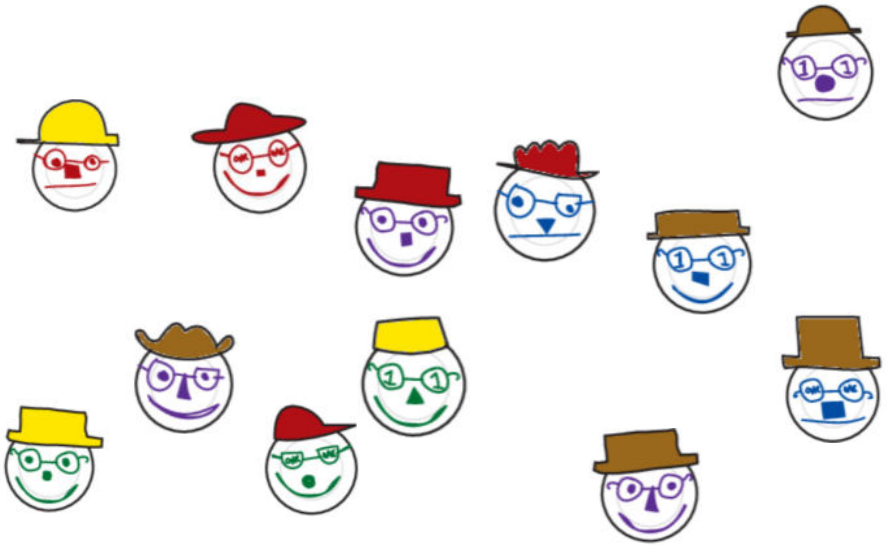
FEATURE	SHOWS	EXAMPLES
Hat	What group size you prefer	red = Alone; yellow = With 1 person; brown = With small groups
Glasses	How you like to record mathematical thinking	Pictures; Numbers; Words
Nose	Your favorite time of day	Morning; Afternoon; Evening
Mouth	How you feel about math	Love math; Like math

How can we sort these glyphs?

Title here

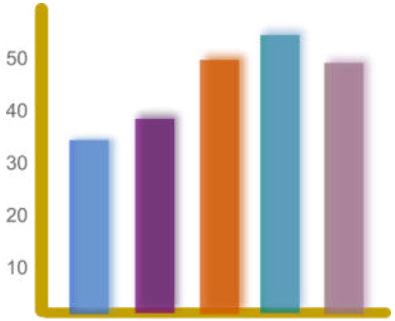
Label	Label	Label

# of People



What is a bar graph?

A **bar graph** is a picture that helps people compare information.



Title Title here

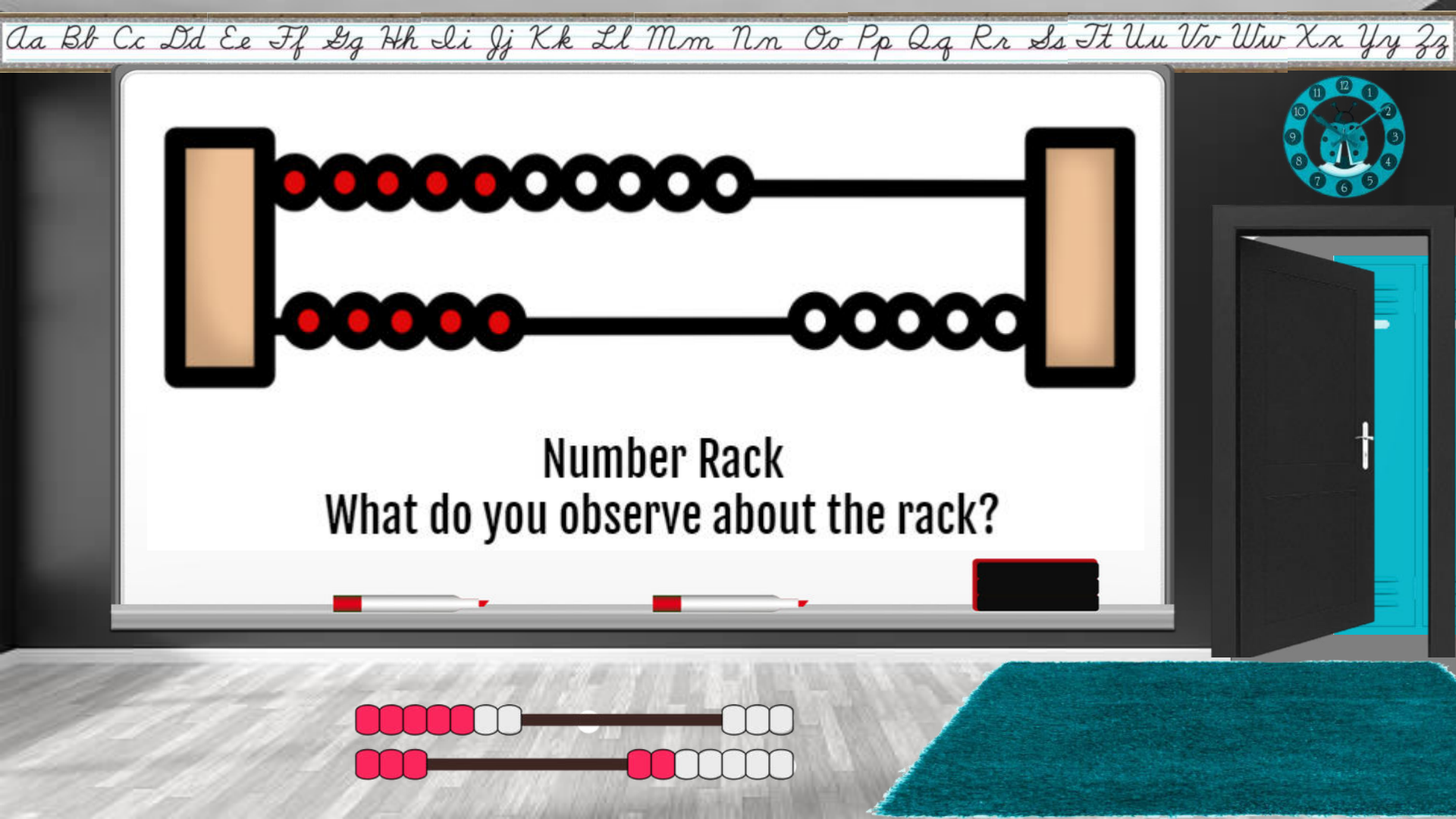
# of People

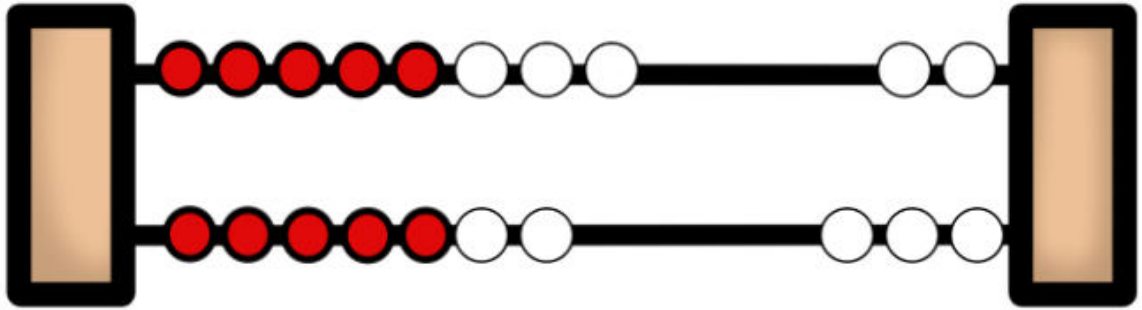
8
7
6
5
4
3
2
1

Label Label Label

Number Rack Review
Learning Targets

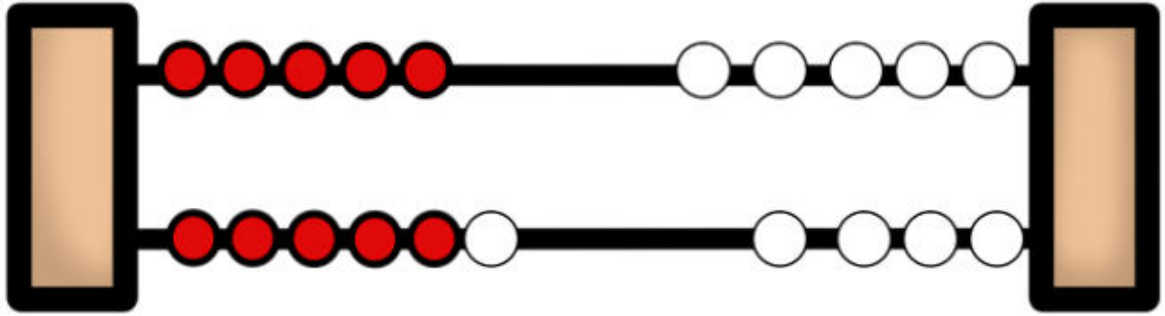
- Fluently add and subtract within 20 using mental strategies
- Use addition and subtraction within 100 to solve one-step word problems
- Fluently add and subtract within 100 using strategies
- Identify patterns among basic addition facts
- Fluently add and subtract within 1,000 using strategies
- Model with mathematics
- Look for and make use of structure


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
Number Rack
What do you observe about the rack?



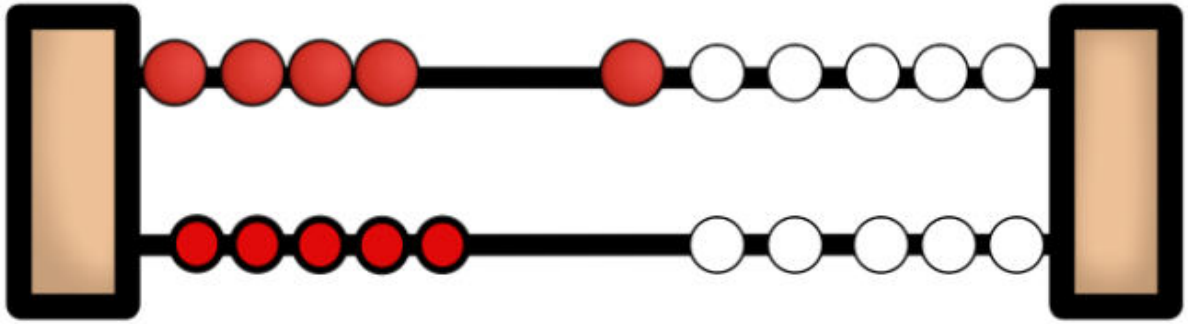
How could you used the beads to solve

8 + 7?



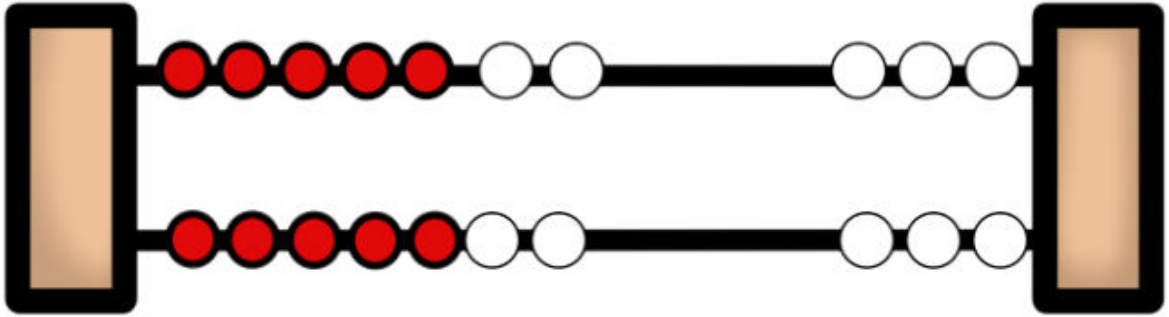
How could you used the beads to solve

5 + 6?



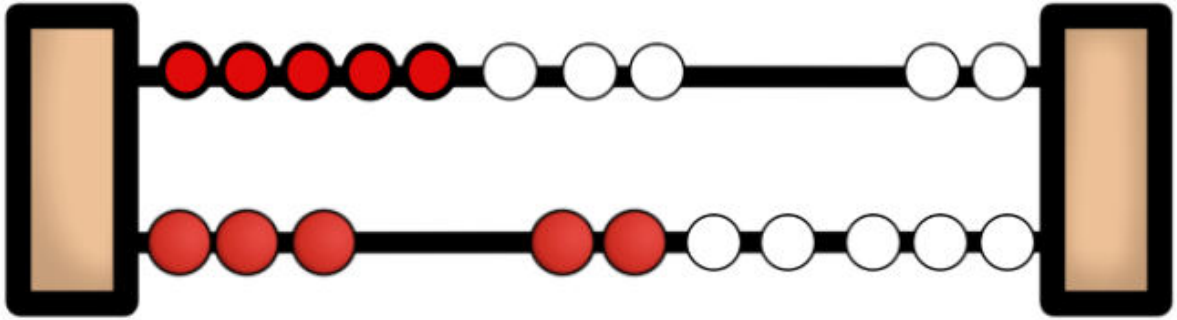
How could you used the beads to solve

4 + 5?



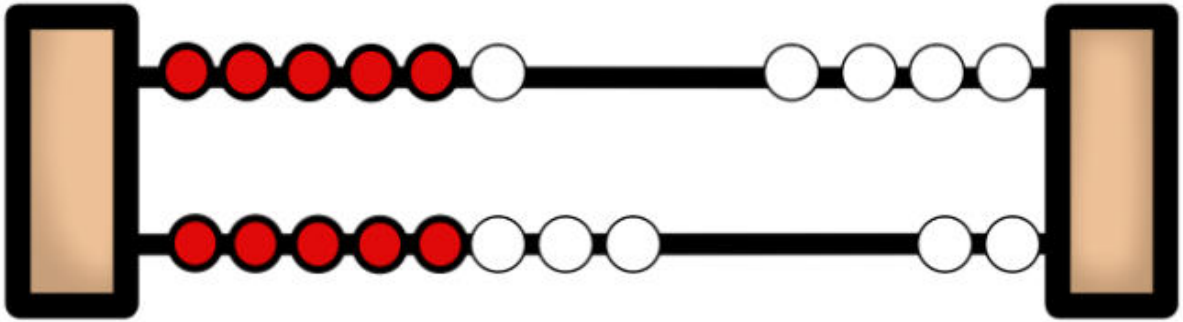
How could you used the beads to solve

7 + 7?



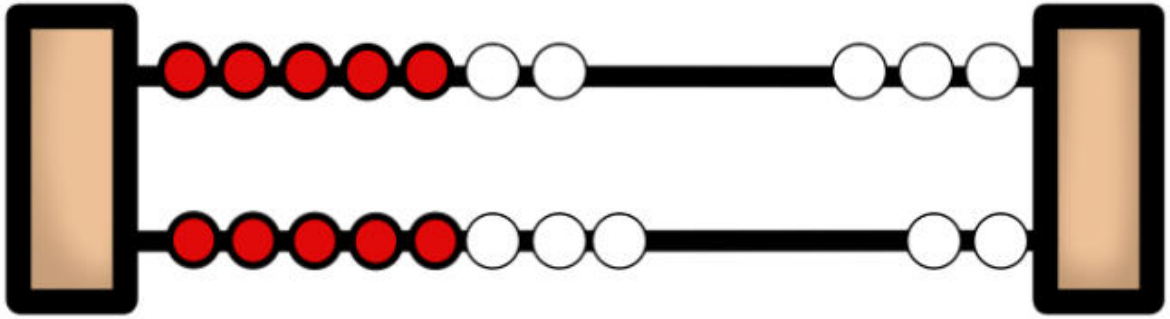
How could you used the beads to solve

8 + 3?



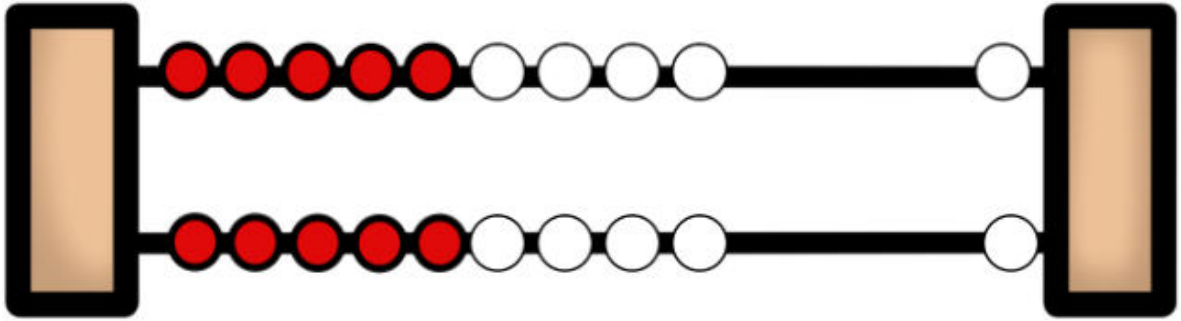
How could you used the beads to solve

6 + 8?



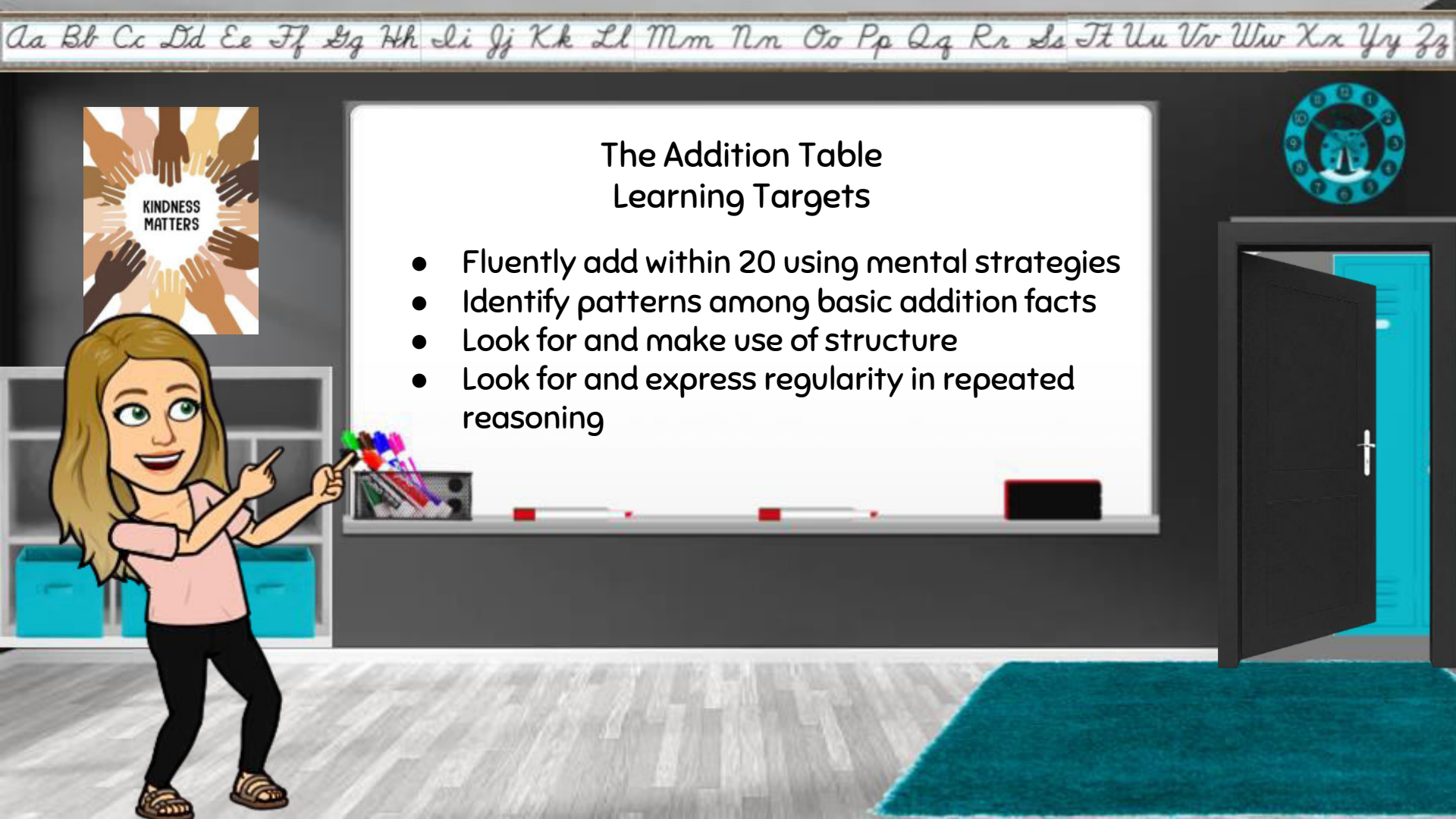
How could you used the beads to solve

7 + 8?



How could you used the beads to solve

9 +9?



The Addition Table
Learning Targets

- Fluently add within 20 using mental strategies
- Identify patterns among basic addition facts
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

Items you will need today.....

	0	1	2	3	4	5	6	7	8	9	10
0	0 +0 0	0 +1 1	0 +2 2	0 +3 3	0 +4 4	0 +5 5	0 +6 6	0 +7 7	0 +8 8	0 +9 9	0 +10 10
1	1 +0 1	1 +1 2	1 +2 3	1 +3 4	1 +4 5	1 +5 6	1 +6 7	1 +7 8	1 +8 9	1 +9 10	1 +10 11
2	2 +0 2	2 +1 3	2 +2 4	2 +3 5	2 +4 6	2 +5 7	2 +6 8	2 +7 9	2 +8 10	2 +9 11	2 +10 12
3	3 +0 3	3 +1 4	3 +2 5	3 +3 6	3 +4 7	3 +5 8	3 +6 9	3 +7 10	3 +8 11	3 +9 12	3 +10 13
4	4 +0 4	4 +1 5	4 +2 6	4 +3 7	4 +4 8	4 +5 9	4 +6 10	4 +7 11	4 +8 12	4 +9 13	4 +10 14
5	5 +0 5	5 +1 6	5 +2 7	5 +3 8	5 +4 9	5 +5 10	5 +6 11	5 +7 12	5 +8 13	5 +9 14	5 +10 15
6	6 +0 6	6 +1 7	6 +2 8	6 +3 9	6 +4 10	6 +5 11	6 +6 12	6 +7 13	6 +8 14	6 +9 15	6 +10 16
7	7 +0 7	7 +1 8	7 +2 9	7 +3 10	7 +4 11	7 +5 12	7 +6 13	7 +7 14	7 +8 15	7 +9 16	7 +10 17
8	8 +0 8	8 +1 9	8 +2 10	8 +3 11	8 +4 12	8 +5 13	8 +6 14	8 +7 15	8 +8 16	8 +9 17	8 +10 18
9	9 +0 9	9 +1 10	9 +2 11	9 +3 12	9 +4 13	9 +5 14	9 +6 15	9 +7 16	9 +8 17	9 +9 18	9 +10 19
10	10 +0 10	10 +1 11	10 +2 12	10 +3 13	10 +4 14	10 +5 15	10 +6 16	10 +7 17	10 +8 18	10 +9 19	10 +10 20

Legend

- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts

Vocabulary

sum or total

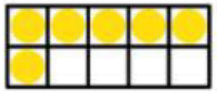
$2 + 5 = 7$

$$\begin{array}{r} 2 \\ +\ 5 \\ \hline 7 \end{array}$$

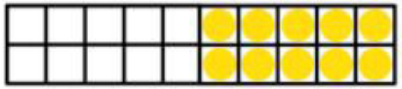
Word Resource Cards Grades 3–5 | WRC35

ADD ZERO FACTS

When you add 0 to any number, the sum is always that number.

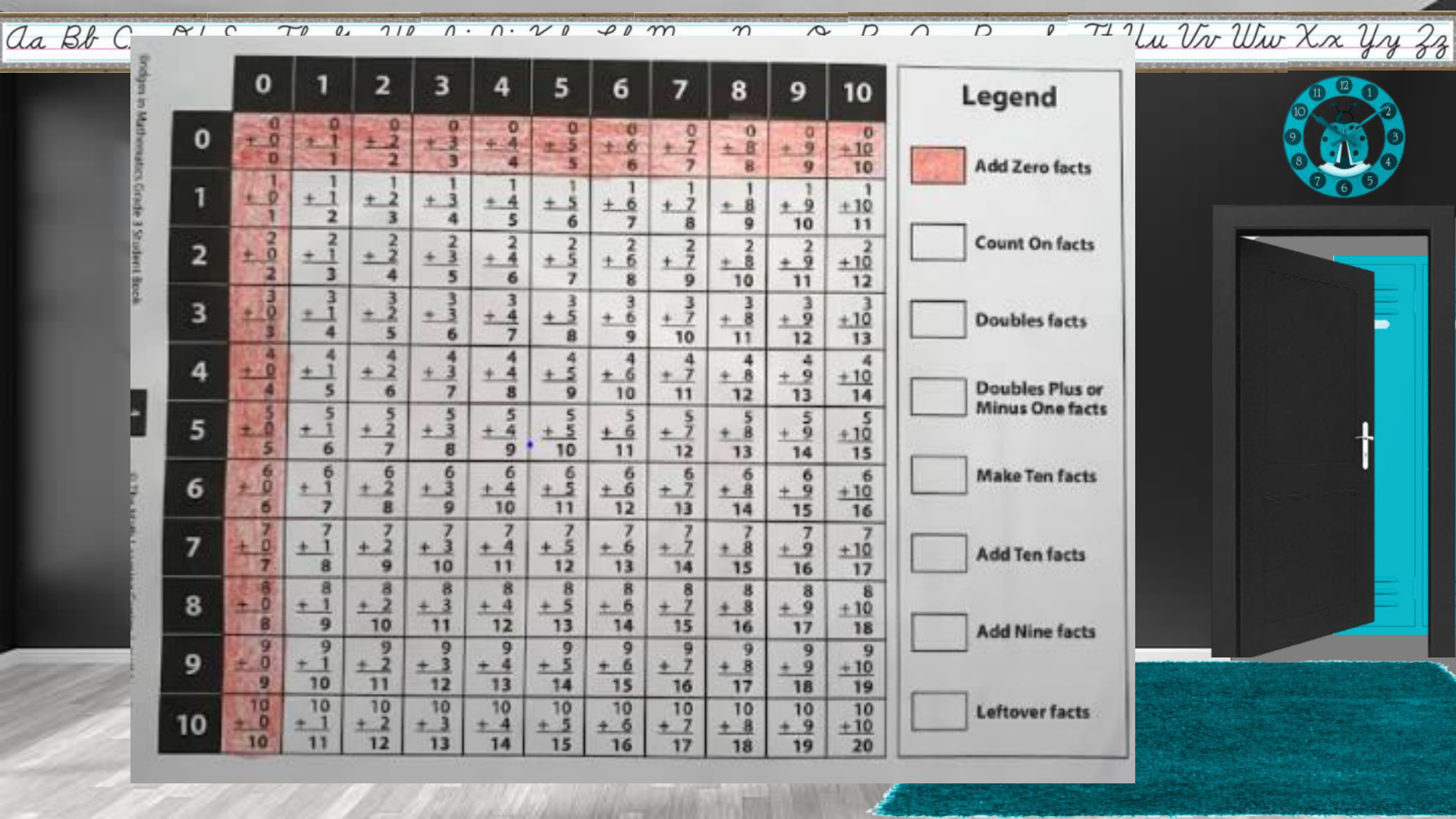


6 + 0 = 6



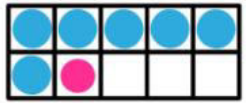
0 + 10 = 10

LearningCOVE

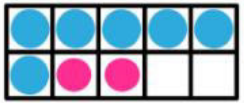

Aa Bb
Uu Vv Ww Xx Yy Zz
Bridges in Mathematics Grade 3 Student Book
0 1 2 3 4 5 6 7 8 9 10
0 1 2 3 4 5 6 7 8 9 10
Legend
Add Zero facts
Count On facts
Doubles facts
Doubles Plus or Minus One facts
Make Ten facts
Add Ten facts
Add Nine facts
Leftover facts

COUNT ON FACTS

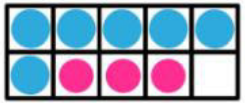
You can count on when you add 1, 2, or 3 to another number.



6 + 1 = 7



6 + 2 = 8



6 + 3 = 9

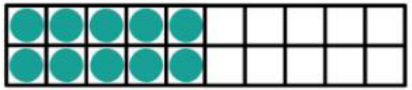
Tip: Count on from the larger addend

LearningCOVE

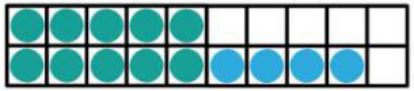

0 1 2 3 4 5 6 7 8 9 10
0 0+0=0 0+1=1 0+2=2 0+3=3 0+4=4 0+5=5 0+6=6 0+7=7 0+8=8 0+9=9 0+10=10
1 1+0=1 1+1=2 1+2=3 1+3=4 1+4=5 1+5=6 1+6=7 1+7=8 1+8=9 1+9=10 1+10=11
2 2+0=2 2+1=3 2+2=4 2+3=5 2+4=6 2+5=7 2+6=8 2+7=9 2+8=10 2+9=11 2+10=12
3 3+0=3 3+1=4 3+2=5 3+3=6 3+4=7 3+5=8 3+6=9 3+7=10 3+8=11 3+9=12 3+10=13
4 4+0=4 4+1=5 4+2=6 4+3=7 4+4=8 4+5=9 4+6=10 4+7=11 4+8=12 4+9=13 4+10=14
5 5+0=5 5+1=6 5+2=7 5+3=8 5+4=9 5+5=10 5+6=11 5+7=12 5+8=13 5+9=14 5+10=15
6 6+0=6 6+1=7 6+2=8 6+3=9 6+4=10 6+5=11 6+6=12 6+7=13 6+8=14 6+9=15 6+10=16
7 7+0=7 7+1=8 7+2=9 7+3=10 7+4=11 7+5=12 7+6=13 7+7=14 7+8=15 7+9=16 7+10=17
8 8+0=8 8+1=9 8+2=10 8+3=11 8+4=12 8+5=13 8+6=14 8+7=15 8+8=16 8+9=17 8+10=18
9 9+0=9 9+1=10 9+2=11 9+3=12 9+4=13 9+5=14 9+6=15 9+7=16 9+8=17 9+9=18 9+10=19
10 10+0=10 10+1=11 10+2=12 10+3=13 10+4=14 10+5=15 10+6=16 10+7=17 10+8=18 10+9=19 10+10=20
Legend
Add Zero facts
Count On facts
Doubles facts
Doubles Plus or Minus One facts
Make Ten facts
Add Ten facts
Add Nine facts
Leftover facts

DOUBLES FACTS

When you add the same number to itself, it's a doubles fact.



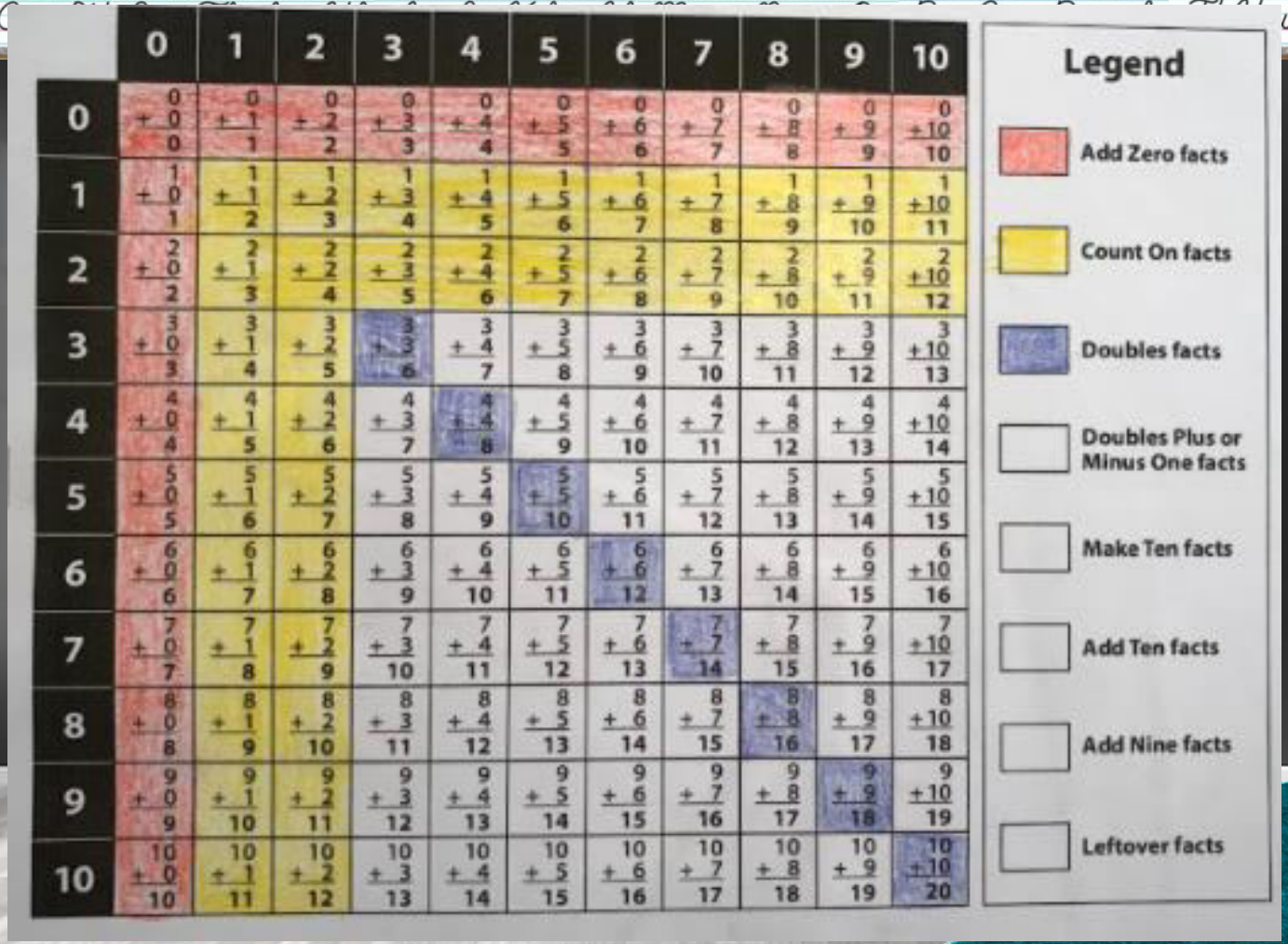
5 + 5 = 10



7 + 7 = 14

Doubles are always even

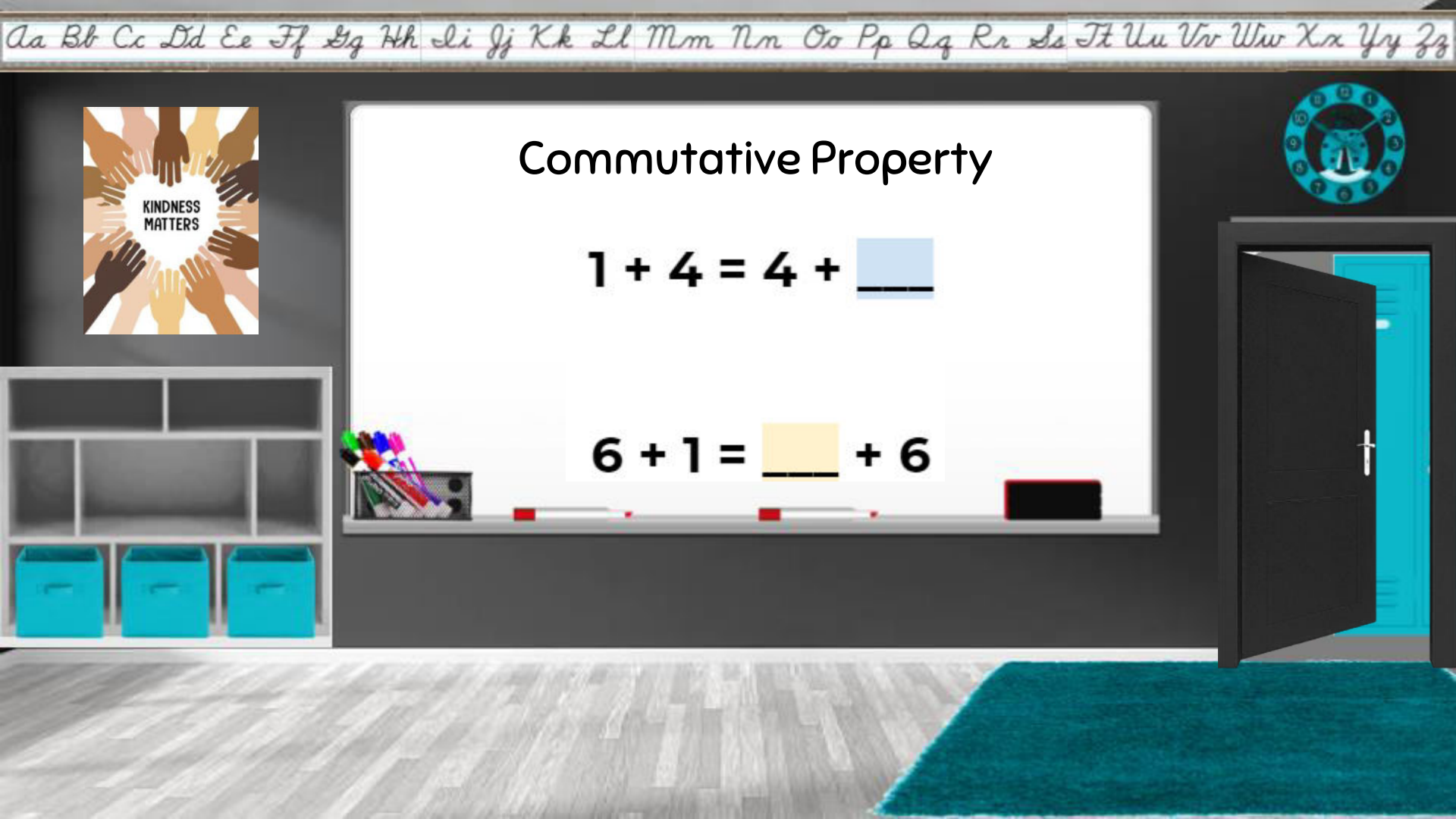
LearningCOVE



	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0 = 0	0 + 1 = 1	0 + 2 = 2	0 + 3 = 3	0 + 4 = 4	0 + 5 = 5	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1	1 + 0 = 1	1 + 1 = 2	1 + 2 = 3	1 + 3 = 4	1 + 4 = 5	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10	1 + 10 = 11
2	2 + 0 = 2	2 + 1 = 3	2 + 2 = 4	2 + 3 = 5	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10	2 + 9 = 11	2 + 10 = 12
3	3 + 0 = 3	3 + 1 = 4	3 + 2 = 5	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10	3 + 8 = 11	3 + 9 = 12	3 + 10 = 13
4	4 + 0 = 4	4 + 1 = 5	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10	4 + 7 = 11	4 + 8 = 12	4 + 9 = 13	4 + 10 = 14
5	5 + 0 = 5	5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10	5 + 6 = 11	5 + 7 = 12	5 + 8 = 13	5 + 9 = 14	5 + 10 = 15
6	6 + 0 = 6	6 + 1 = 7	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10	6 + 5 = 11	6 + 6 = 12	6 + 7 = 13	6 + 8 = 14	6 + 9 = 15	6 + 10 = 16
7	7 + 0 = 7	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10	7 + 4 = 11	7 + 5 = 12	7 + 6 = 13	7 + 7 = 14	7 + 8 = 15	7 + 9 = 16	7 + 10 = 17
8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	8 + 6 = 14	8 + 7 = 15	8 + 8 = 16	8 + 9 = 17	8 + 10 = 18
9	9 + 0 = 9	9 + 1 = 10	9 + 2 = 11	9 + 3 = 12	9 + 4 = 13	9 + 5 = 14	9 + 6 = 15	9 + 7 = 16	9 + 8 = 17	9 + 9 = 18	9 + 10 = 19
10	10 + 0 = 10	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 8 = 18	10 + 9 = 19	10 + 10 = 20

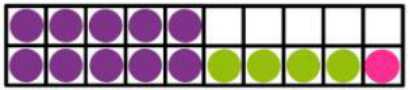
Legend

- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Commutative Property
1 + 4 = 4 + ___
6 + 1 = ___ + 6

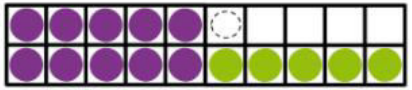
DOUBLES PLUS OR MINUS ONE FACTS

Double the smaller number and add 1.



7 + 8 = 15

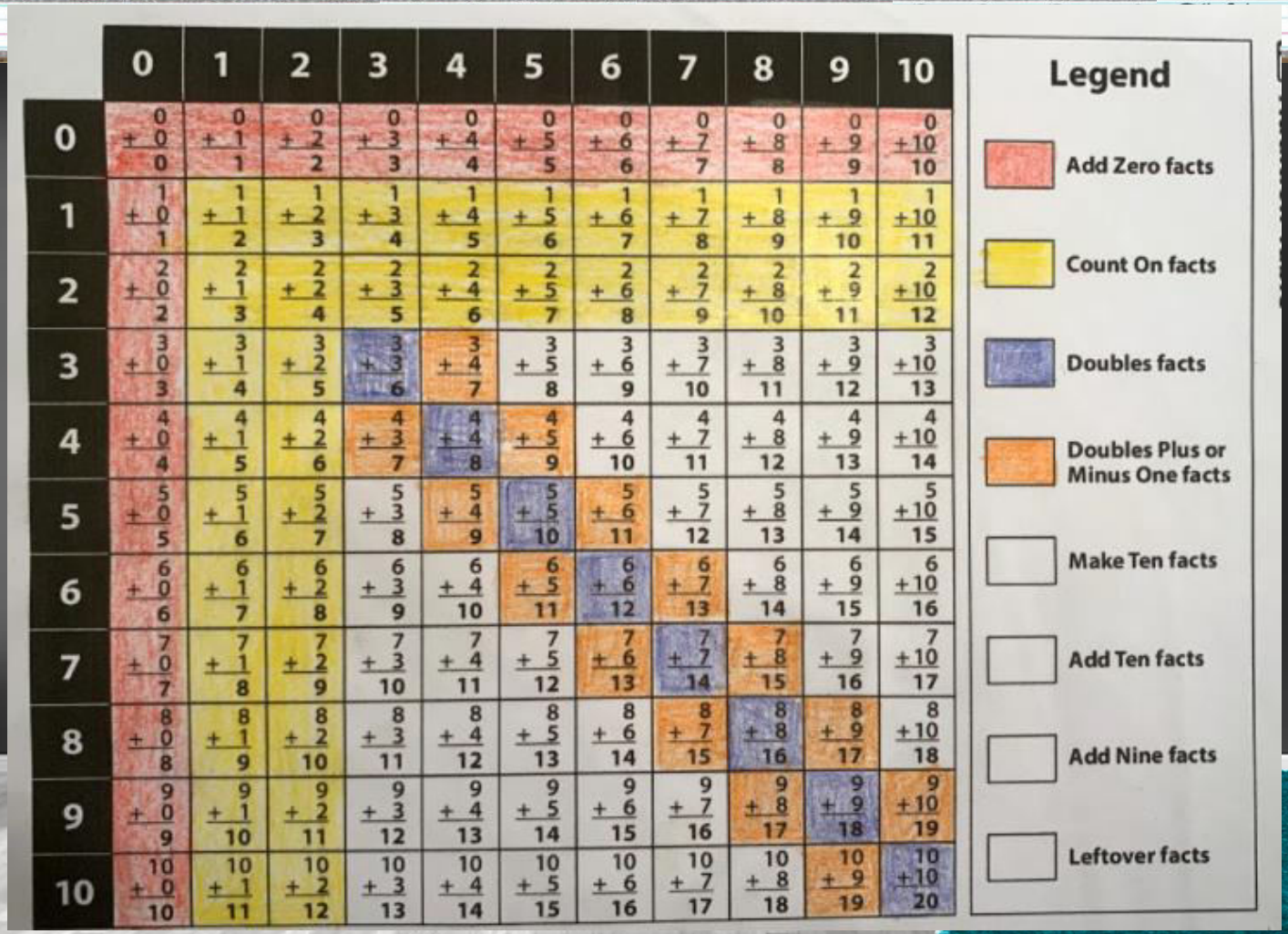
Double the larger number and subtract 1.



8 + 7 = 15

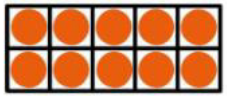
Doubles plus or minus one are always odd

LearningCOVE

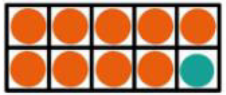

0 1 2 3 4 5 6 7 8 9 10
0 0+0=0 0+1=1 0+2=2 0+3=3 0+4=4 0+5=5 0+6=6 0+7=7 0+8=8 0+9=9 0+10=10
1 1+0=1 1+1=2 1+2=3 1+3=4 1+4=5 1+5=6 1+6=7 1+7=8 1+8=9 1+9=10 1+10=11
2 2+0=2 2+1=3 2+2=4 2+3=5 2+4=6 2+5=7 2+6=8 2+7=9 2+8=10 2+9=11 2+10=12
3 3+0=3 3+1=4 3+2=5 3+3=6 3+4=7 3+5=8 3+6=9 3+7=10 3+8=11 3+9=12 3+10=13
4 4+0=4 4+1=5 4+2=6 4+3=7 4+4=8 4+5=9 4+6=10 4+7=11 4+8=12 4+9=13 4+10=14
5 5+0=5 5+1=6 5+2=7 5+3=8 5+4=9 5+5=10 5+6=11 5+7=12 5+8=13 5+9=14 5+10=15
6 6+0=6 6+1=7 6+2=8 6+3=9 6+4=10 6+5=11 6+6=12 6+7=13 6+8=14 6+9=15 6+10=16
7 7+0=7 7+1=8 7+2=9 7+3=10 7+4=11 7+5=12 7+6=13 7+7=14 7+8=15 7+9=16 7+10=17
8 8+0=8 8+1=9 8+2=10 8+3=11 8+4=12 8+5=13 8+6=14 8+7=15 8+8=16 8+9=17 8+10=18
9 9+0=9 9+1=10 9+2=11 9+3=12 9+4=13 9+5=14 9+6=15 9+7=16 9+8=17 9+9=18 9+10=19
10 10+0=10 10+1=11 10+2=12 10+3=13 10+4=14 10+5=15 10+6=16 10+7=17 10+8=18 10+9=19 10+10=20
Legend
Add Zero facts
Count On facts
Doubles facts
Doubles Plus or Minus One facts
Make Ten facts
Add Ten facts
Add Nine facts
Leftover facts

MAKE TEN FACTS

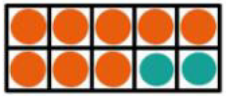
These pairs of numbers make 10.



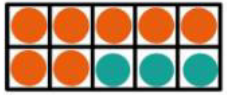
10 + 0 = 10



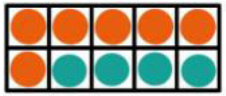
1 + 9 = 10



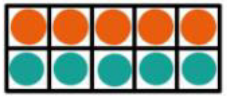
2 + 8 = 10



3 + 7 = 10



4 + 6 = 10



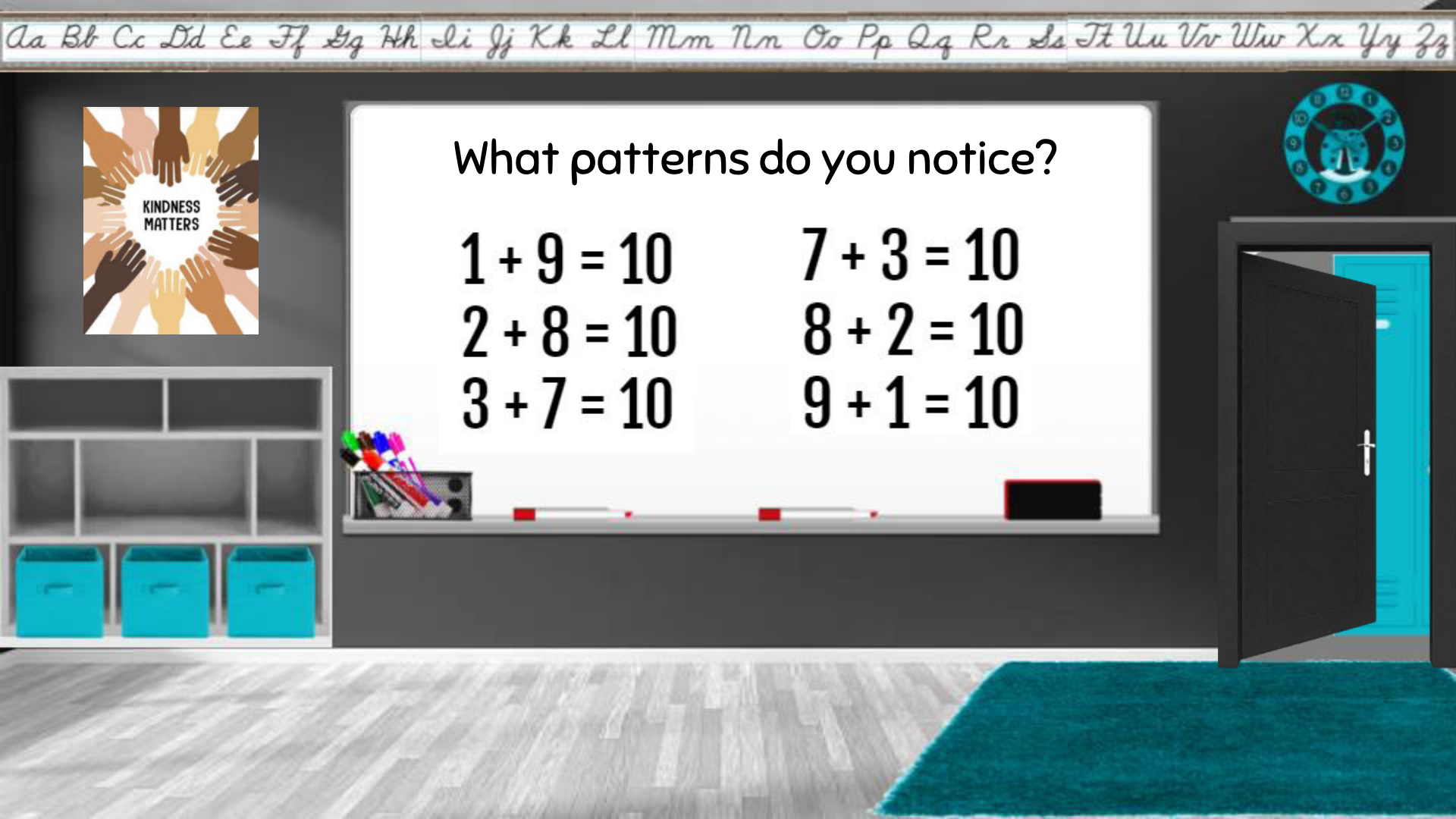
5 + 5 = 10

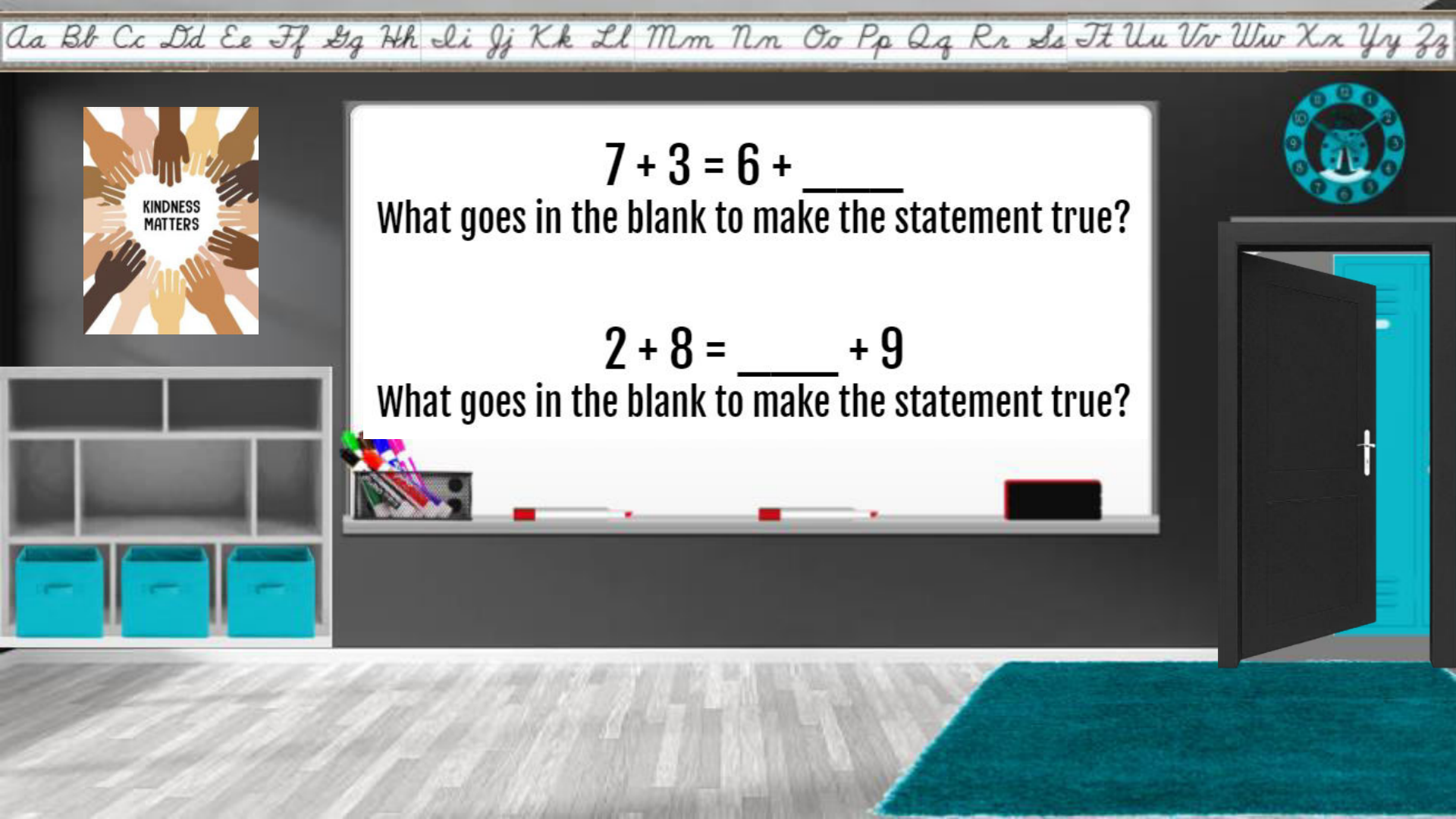
LearningCOVE

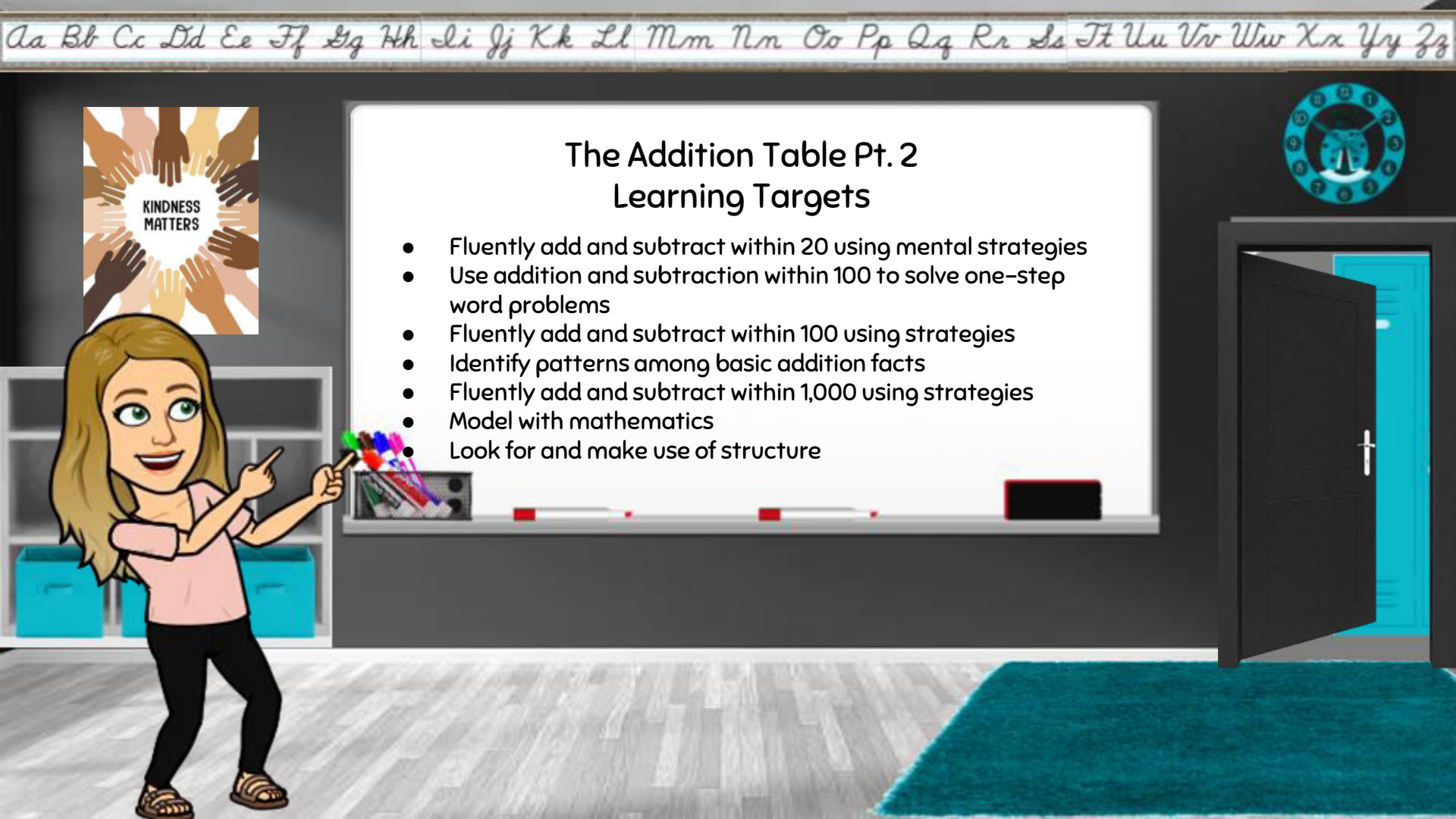
	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0 = 0	0 + 1 = 1	0 + 2 = 2	0 + 3 = 3	0 + 4 = 4	0 + 5 = 5	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1	1 + 0 = 1	1 + 1 = 2	1 + 2 = 3	1 + 3 = 4	1 + 4 = 5	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10	1 + 10 = 11
2	2 + 0 = 2	2 + 1 = 3	2 + 2 = 4	2 + 3 = 5	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10	2 + 9 = 11	2 + 10 = 12
3	3 + 0 = 3	3 + 1 = 4	3 + 2 = 5	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10	3 + 8 = 11	3 + 9 = 12	3 + 10 = 13
4	4 + 0 = 4	4 + 1 = 5	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10	4 + 7 = 11	4 + 8 = 12	4 + 9 = 13	4 + 10 = 14
5	5 + 0 = 5	5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10	5 + 6 = 11	5 + 7 = 12	5 + 8 = 13	5 + 9 = 14	5 + 10 = 15
6	6 + 0 = 6	6 + 1 = 7	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10	6 + 5 = 11	6 + 6 = 12	6 + 7 = 13	6 + 8 = 14	6 + 9 = 15	6 + 10 = 16
7	7 + 0 = 7	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10	7 + 4 = 11	7 + 5 = 12	7 + 6 = 13	7 + 7 = 14	7 + 8 = 15	7 + 9 = 16	7 + 10 = 17
8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	8 + 6 = 14	8 + 7 = 15	8 + 8 = 16	8 + 9 = 17	8 + 10 = 18
9	9 + 0 = 9	9 + 1 = 10	9 + 2 = 11	9 + 3 = 12	9 + 4 = 13	9 + 5 = 14	9 + 6 = 15	9 + 7 = 16	9 + 8 = 17	9 + 9 = 18	9 + 10 = 19
10	10 + 0 = 10	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 8 = 18	10 + 9 = 19	10 + 10 = 20

Legend

- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
What patterns do you notice?
1 + 9 = 10
2 + 8 = 10
3 + 7 = 10
7 + 3 = 10
8 + 2 = 10
9 + 1 = 10

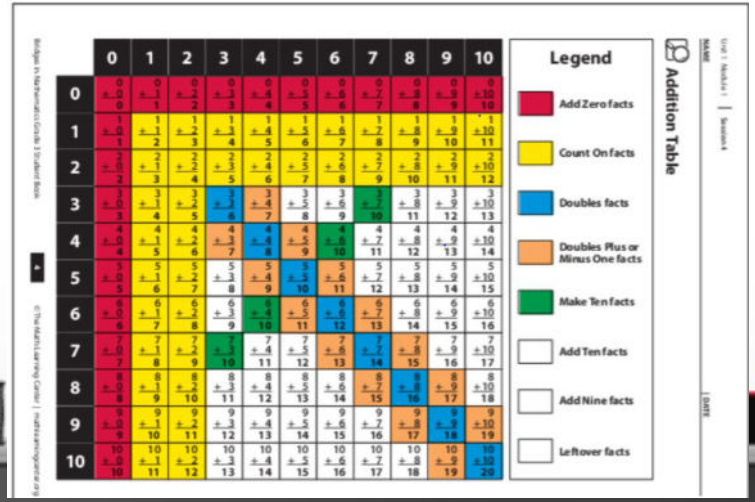

KINDNESS MATTERS
7 + 3 = 6 + ____
What goes in the blank to make the statement true?
2 + 8 = ____ + 9
What goes in the blank to make the statement true?



The Addition Table Pt. 2
Learning Targets

- Fluently add and subtract within 20 using mental strategies
- Use addition and subtraction within 100 to solve one-step word problems
- Fluently add and subtract within 100 using strategies
- Identify patterns among basic addition facts
- Fluently add and subtract within 1,000 using strategies
- Model with mathematics
- Look for and make use of structure

What patterns do you notice?

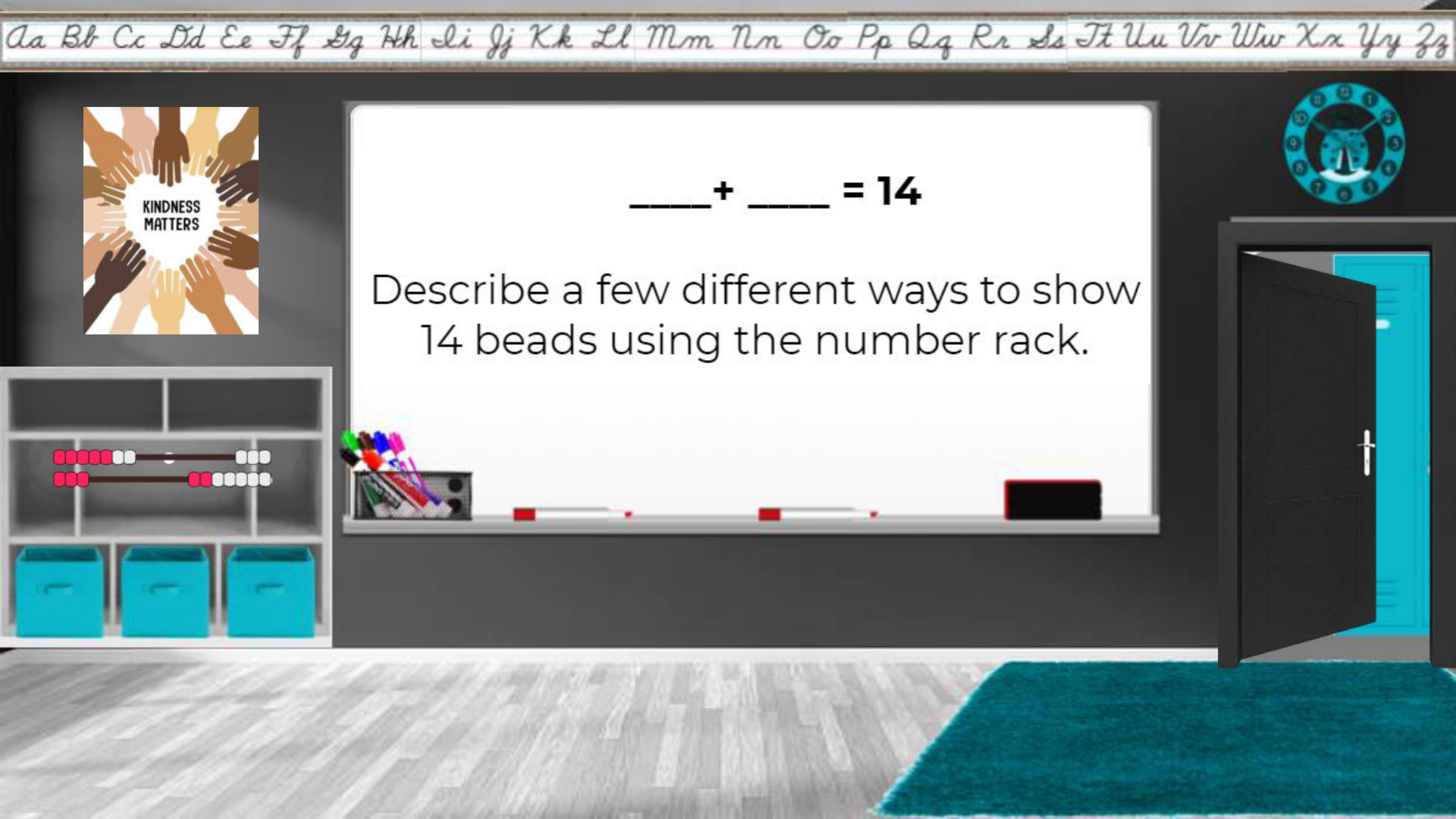


Addition Table

+	0	1	2	3	4	5	6	7	8	9	10
0	0+0=0	0+1=1	0+2=2	0+3=3	0+4=4	0+5=5	0+6=6	0+7=7	0+8=8	0+9=9	0+10=10
1	1+0=1	1+1=2	1+2=3	1+3=4	1+4=5	1+5=6	1+6=7	1+7=8	1+8=9	1+9=10	1+10=11
2	2+0=2	2+1=3	2+2=4	2+3=5	2+4=6	2+5=7	2+6=8	2+7=9	2+8=10	2+9=11	2+10=12
3	3+0=3	3+1=4	3+2=5	3+3=6	3+4=7	3+5=8	3+6=9	3+7=10	3+8=11	3+9=12	3+10=13
4	4+0=4	4+1=5	4+2=6	4+3=7	4+4=8	4+5=9	4+6=10	4+7=11	4+8=12	4+9=13	4+10=14
5	5+0=5	5+1=6	5+2=7	5+3=8	5+4=9	5+5=10	5+6=11	5+7=12	5+8=13	5+9=14	5+10=15
6	6+0=6	6+1=7	6+2=8	6+3=9	6+4=10	6+5=11	6+6=12	6+7=13	6+8=14	6+9=15	6+10=16
7	7+0=7	7+1=8	7+2=9	7+3=10	7+4=11	7+5=12	7+6=13	7+7=14	7+8=15	7+9=16	7+10=17
8	8+0=8	8+1=9	8+2=10	8+3=11	8+4=12	8+5=13	8+6=14	8+7=15	8+8=16	8+9=17	8+10=18
9	9+0=9	9+1=10	9+2=11	9+3=12	9+4=13	9+5=14	9+6=15	9+7=16	9+8=17	9+9=18	9+10=19
10	10+0=10	10+1=11	10+2=12	10+3=13	10+4=14	10+5=15	10+6=16	10+7=17	10+8=18	10+9=19	10+10=20

Legend

- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
____+ ____ = 14
Describe a few different ways to show 14 beads using the number rack.

Model these problems using the number rack...

10 + 7

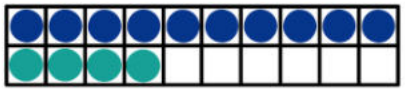
10 + 8

10 + 3

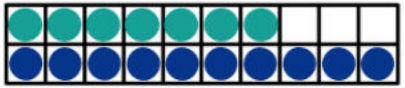
10 + 2

ADD TEN FACTS

When you add 10 to a single-digit number, the sum is always a teen number.



10 + 4 = 14



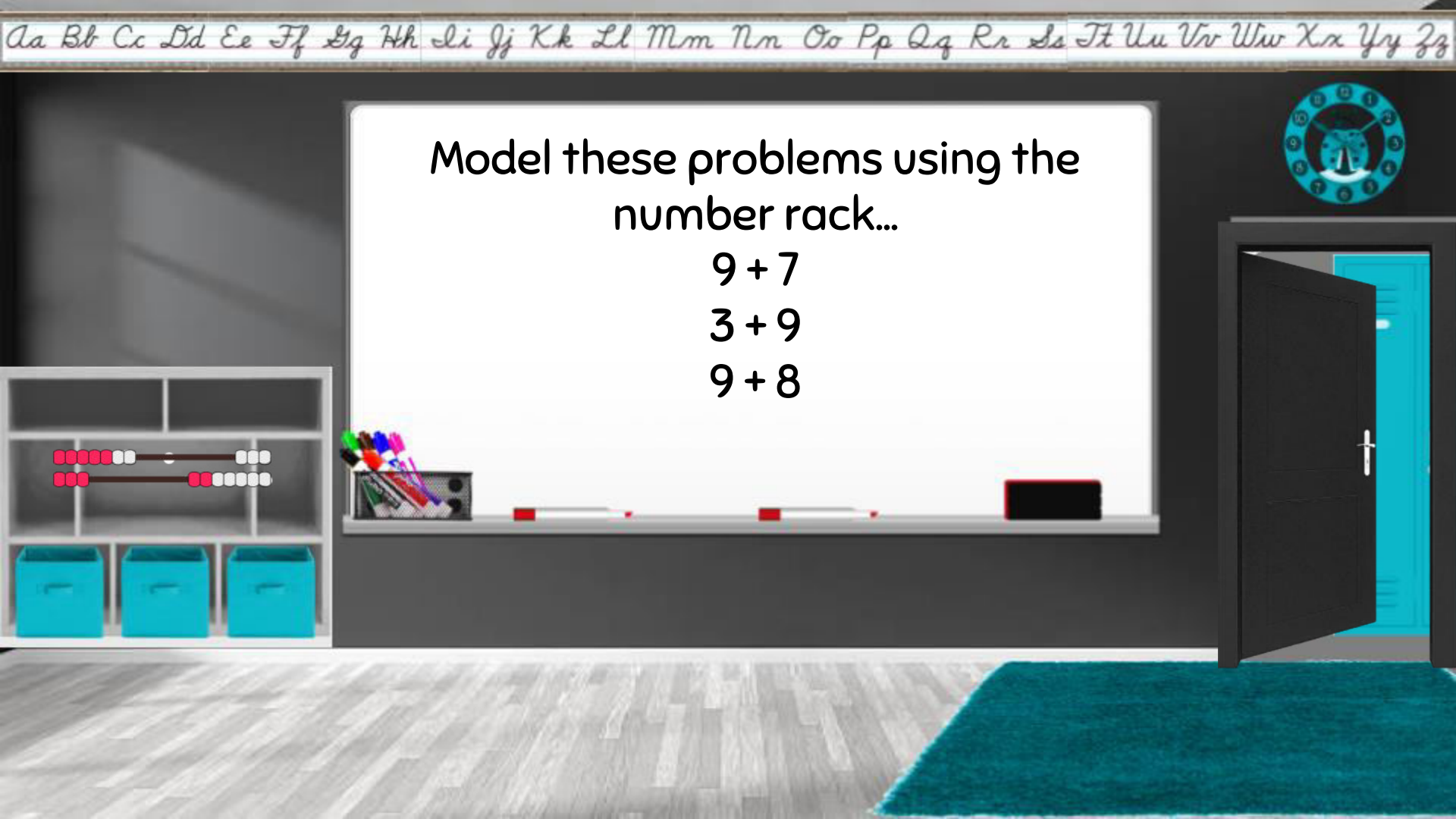
7 + 10 = 17

LearningCOVE

	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0 = 0	0 + 1 = 1	0 + 2 = 2	0 + 3 = 3	0 + 4 = 4	0 + 5 = 5	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1	1 + 0 = 1	1 + 1 = 2	1 + 2 = 3	1 + 3 = 4	1 + 4 = 5	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10	1 + 10 = 11
2	2 + 0 = 2	2 + 1 = 3	2 + 2 = 4	2 + 3 = 5	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10	2 + 9 = 11	2 + 10 = 12
3	3 + 0 = 3	3 + 1 = 4	3 + 2 = 5	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10	3 + 8 = 11	3 + 9 = 12	3 + 10 = 13
4	4 + 0 = 4	4 + 1 = 5	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10	4 + 7 = 11	4 + 8 = 12	4 + 9 = 13	4 + 10 = 14
5	5 + 0 = 5	5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10	5 + 6 = 11	5 + 7 = 12	5 + 8 = 13	5 + 9 = 14	5 + 10 = 15
6	6 + 0 = 6	6 + 1 = 7	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10	6 + 5 = 11	6 + 6 = 12	6 + 7 = 13	6 + 8 = 14	6 + 9 = 15	6 + 10 = 16
7	7 + 0 = 7	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10	7 + 4 = 11	7 + 5 = 12	7 + 6 = 13	7 + 7 = 14	7 + 8 = 15	7 + 9 = 16	7 + 10 = 17
8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	8 + 6 = 14	8 + 7 = 15	8 + 8 = 16	8 + 9 = 17	8 + 10 = 18
9	9 + 0 = 9	9 + 1 = 10	9 + 2 = 11	9 + 3 = 12	9 + 4 = 13	9 + 5 = 14	9 + 6 = 15	9 + 7 = 16	9 + 8 = 17	9 + 9 = 18	9 + 10 = 19
10	10 + 0 = 10	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 8 = 18	10 + 9 = 19	10 + 10 = 20

Legend

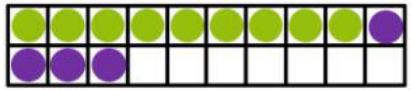
- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts


Model these problems using the number rack...
9 + 7
3 + 9
9 + 8

ADD NINE FACTS

To solve 9 + 4, take 1 from the 4 and give it to the 9 to make 10 + 3.

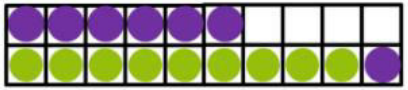
9 + 4 = 10 + 3



9 + 4 = 13

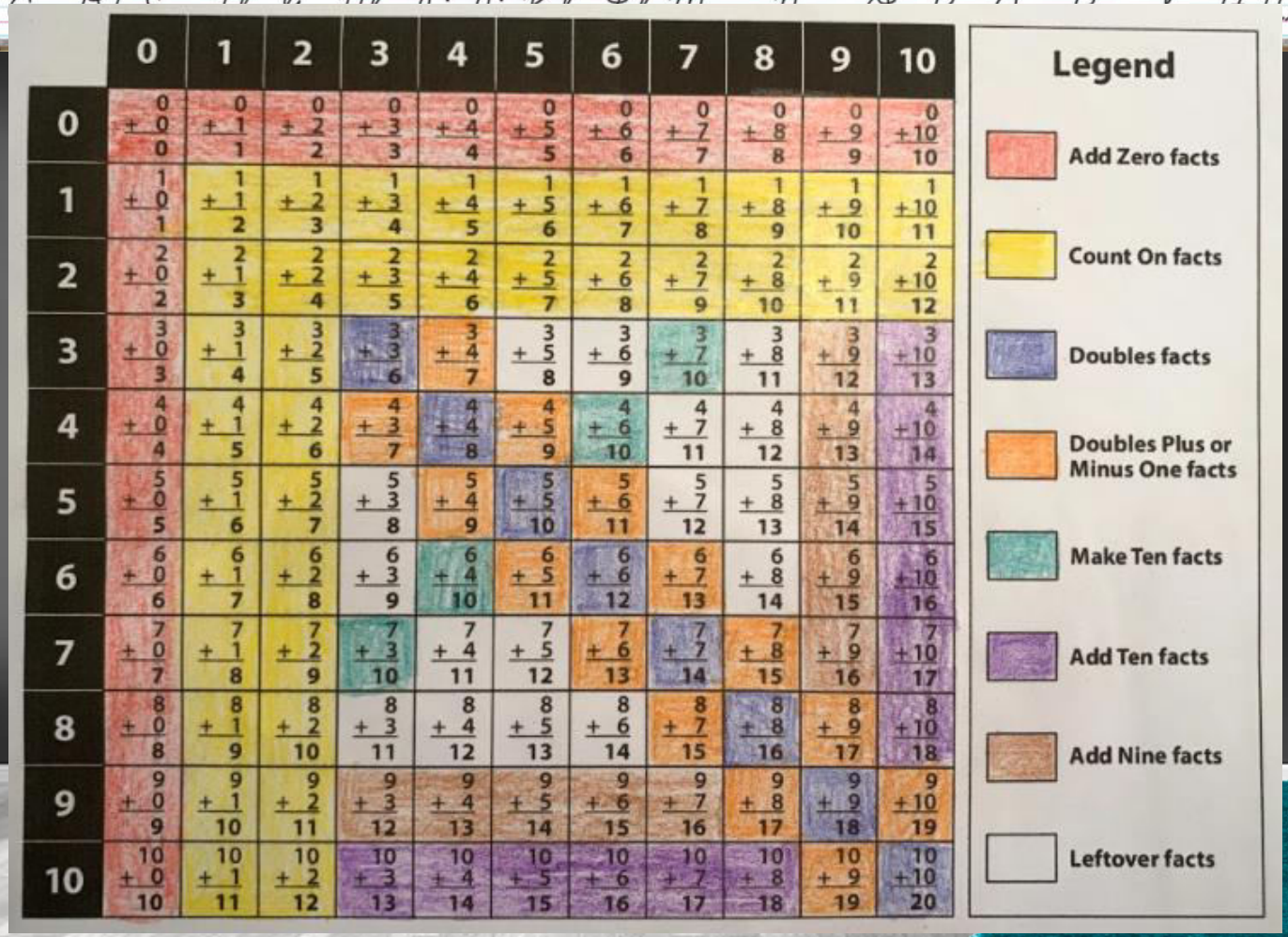
To solve 7 + 9, take 1 from the 7 and give it to the 9 to make 6 + 10.

7 + 9 = 6 + 10



7 + 9 = 16

LearningCOVE



	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0 = 0	0 + 1 = 1	0 + 2 = 2	0 + 3 = 3	0 + 4 = 4	0 + 5 = 5	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1	1 + 0 = 1	1 + 1 = 2	1 + 2 = 3	1 + 3 = 4	1 + 4 = 5	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10	1 + 10 = 11
2	2 + 0 = 2	2 + 1 = 3	2 + 2 = 4	2 + 3 = 5	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10	2 + 9 = 11	2 + 10 = 12
3	3 + 0 = 3	3 + 1 = 4	3 + 2 = 5	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10	3 + 8 = 11	3 + 9 = 12	3 + 10 = 13
4	4 + 0 = 4	4 + 1 = 5	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10	4 + 7 = 11	4 + 8 = 12	4 + 9 = 13	4 + 10 = 14
5	5 + 0 = 5	5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10	5 + 6 = 11	5 + 7 = 12	5 + 8 = 13	5 + 9 = 14	5 + 10 = 15
6	6 + 0 = 6	6 + 1 = 7	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10	6 + 5 = 11	6 + 6 = 12	6 + 7 = 13	6 + 8 = 14	6 + 9 = 15	6 + 10 = 16
7	7 + 0 = 7	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10	7 + 4 = 11	7 + 5 = 12	7 + 6 = 13	7 + 7 = 14	7 + 8 = 15	7 + 9 = 16	7 + 10 = 17
8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	8 + 6 = 14	8 + 7 = 15	8 + 8 = 16	8 + 9 = 17	8 + 10 = 18
9	9 + 0 = 9	9 + 1 = 10	9 + 2 = 11	9 + 3 = 12	9 + 4 = 13	9 + 5 = 14	9 + 6 = 15	9 + 7 = 16	9 + 8 = 17	9 + 9 = 18	9 + 10 = 19
10	10 + 0 = 10	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 8 = 18	10 + 9 = 19	10 + 10 = 20

Legend

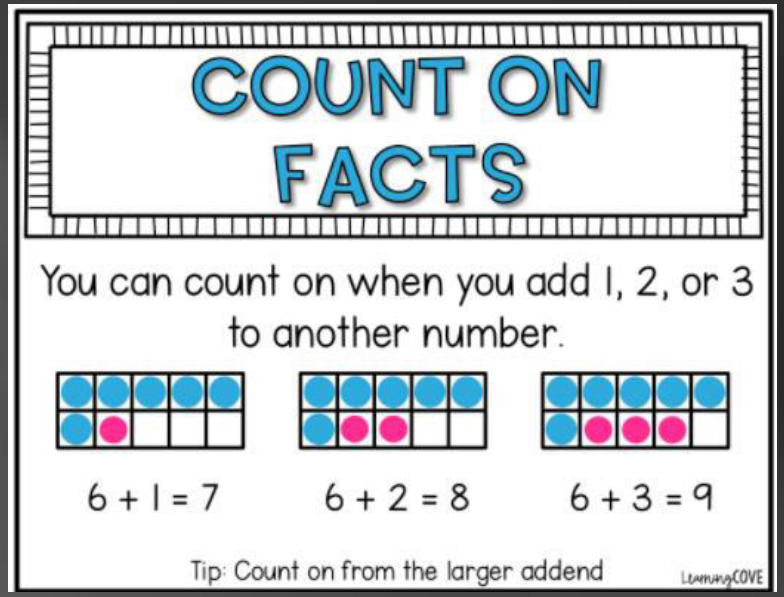
- Add Zero facts
- Count On facts
- Doubles facts
- Doubles Plus or Minus One facts
- Make Ten facts
- Add Ten facts
- Add Nine facts
- Leftover facts

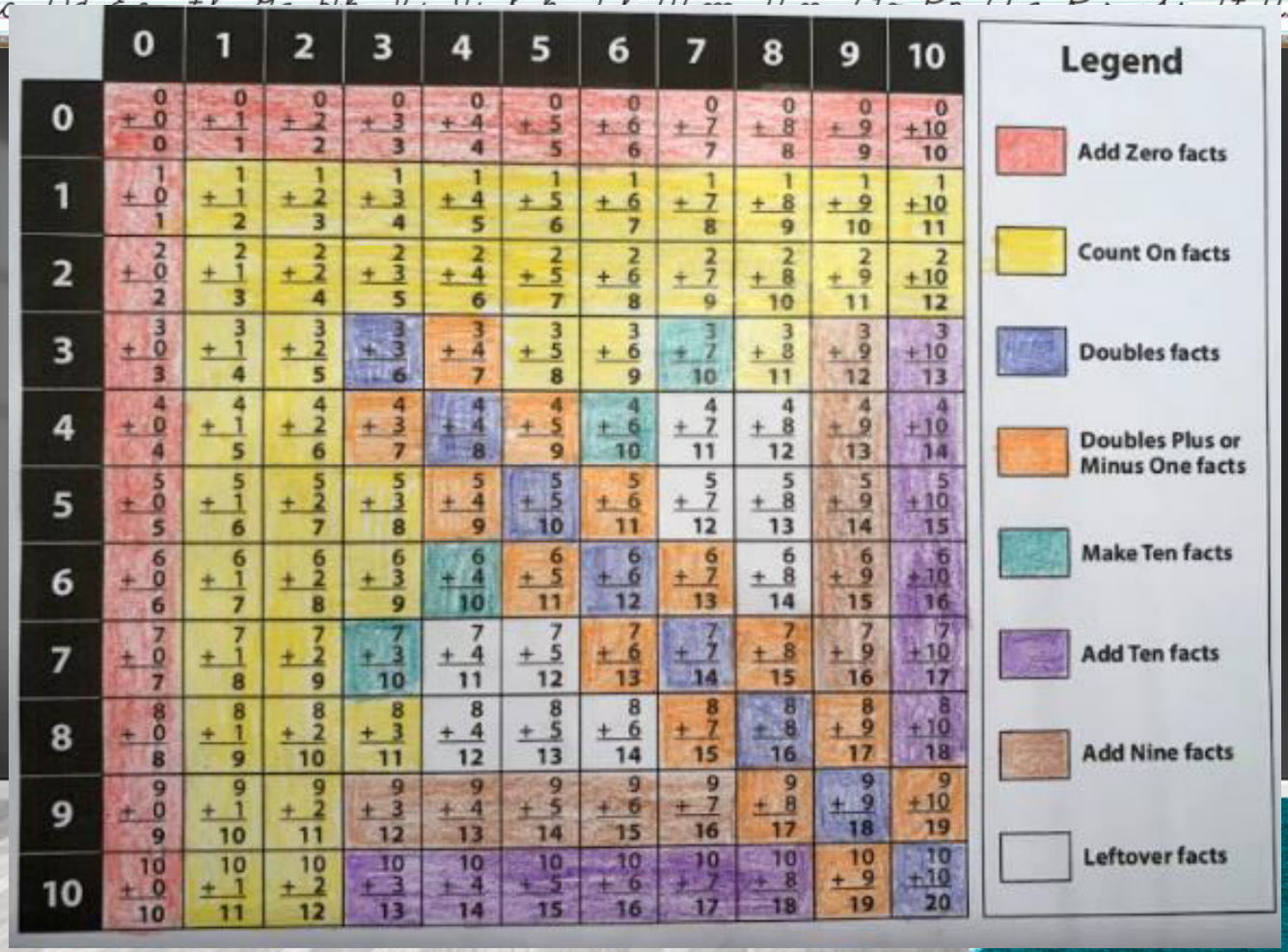
How could you solve these problems?

5 + 3

3 + 6

Add 3 facts can be considered count on facts





	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0 = 0	0 + 1 = 1	0 + 2 = 2	0 + 3 = 3	0 + 4 = 4	0 + 5 = 5	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1	1 + 0 = 1	1 + 1 = 2	1 + 2 = 3	1 + 3 = 4	1 + 4 = 5	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10	1 + 10 = 11
2	2 + 0 = 2	2 + 1 = 3	2 + 2 = 4	2 + 3 = 5	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10	2 + 9 = 11	2 + 10 = 12
3	3 + 0 = 3	3 + 1 = 4	3 + 2 = 5	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10	3 + 8 = 11	3 + 9 = 12	3 + 10 = 13
4	4 + 0 = 4	4 + 1 = 5	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10	4 + 7 = 11	4 + 8 = 12	4 + 9 = 13	4 + 10 = 14
5	5 + 0 = 5	5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10	5 + 6 = 11	5 + 7 = 12	5 + 8 = 13	5 + 9 = 14	5 + 10 = 15
6	6 + 0 = 6	6 + 1 = 7	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10	6 + 5 = 11	6 + 6 = 12	6 + 7 = 13	6 + 8 = 14	6 + 9 = 15	6 + 10 = 16
7	7 + 0 = 7	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10	7 + 4 = 11	7 + 5 = 12	7 + 6 = 13	7 + 7 = 14	7 + 8 = 15	7 + 9 = 16	7 + 10 = 17
8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	8 + 6 = 14	8 + 7 = 15	8 + 8 = 16	8 + 9 = 17	8 + 10 = 18
9	9 + 0 = 9	9 + 1 = 10	9 + 2 = 11	9 + 3 = 12	9 + 4 = 13	9 + 5 = 14	9 + 6 = 15	9 + 7 = 16	9 + 8 = 17	9 + 9 = 18	9 + 10 = 19
10	10 + 0 = 10	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 8 = 18	10 + 9 = 19	10 + 10 = 20

Legend

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Make the Sum 1A Workplace

Game Board

Work Place Instructions 1A Make the Sum

Each pair of players needs:

- 1 deck of Number Cards to share, with the wild cards removed
- their own journals and a pencil

1 Together players choose a target number between 10 and 15, then each player writes the target number at the top of the page.

2 One player places 16 cards from the deck face down in the 4-by-4 array, then the players decide who will go first.

3 The first player turns over 2 cards from the 4-by-4 array.

- If the numbers on the 2 cards add up to the target number, the player keeps the cards and writes an equation in their journal to show the two numbers and the sum.
- If the numbers don't add up to the target number, the player can turn over another card until the sum is equal to or greater than the target number. If the sum is equal to the target number, the player keeps all of the cards and writes an equation in their journal. If the sum goes over the target number, the player turns all the cards back over.

4 Players replace any cards taken so that there are still 16 cards face-down. Then the next player takes a turn.

5 The game continues until all the cards are gone, or until there are no more combinations that add up to the target number.

6 The player with the most cards wins the game.

7 Players choose a different target number and play again.

Game Variations

A Cards are placed face-up instead of face-down.

B Players use a target number lower than 10 or higher than 15. A player turns over 3 or 4 cards at a time and then uses any combination of operations (addition, subtraction, multiplication, division) and each number just once to reach the target number.

C Players choose 15 or 20 as the target number. A player turns over 4 cards at a time and uses any combination of operations (addition, subtraction, multiplication, division) and each number just once to reach the target number.

Module 2

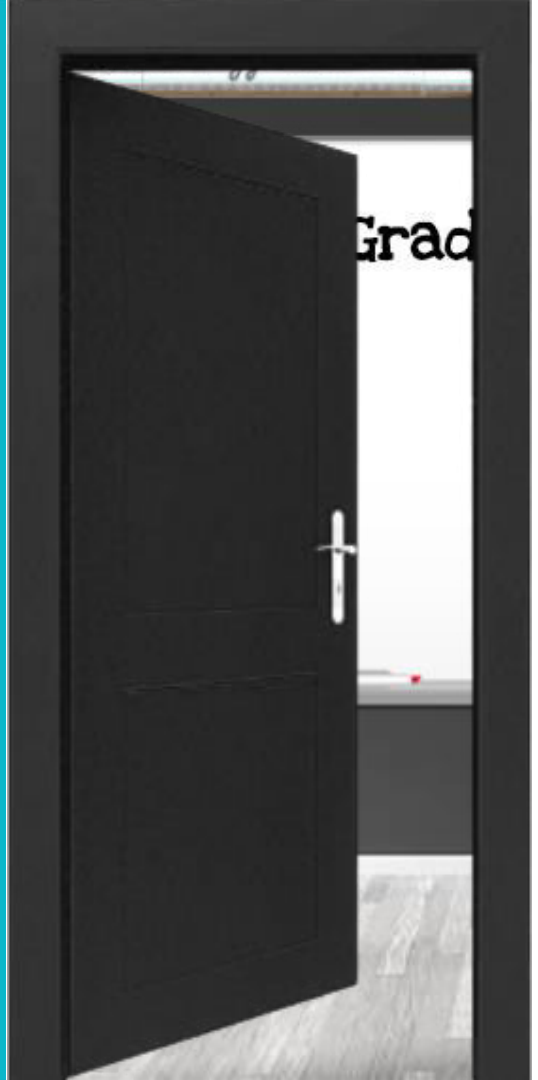
Session 1
Subtraction Table

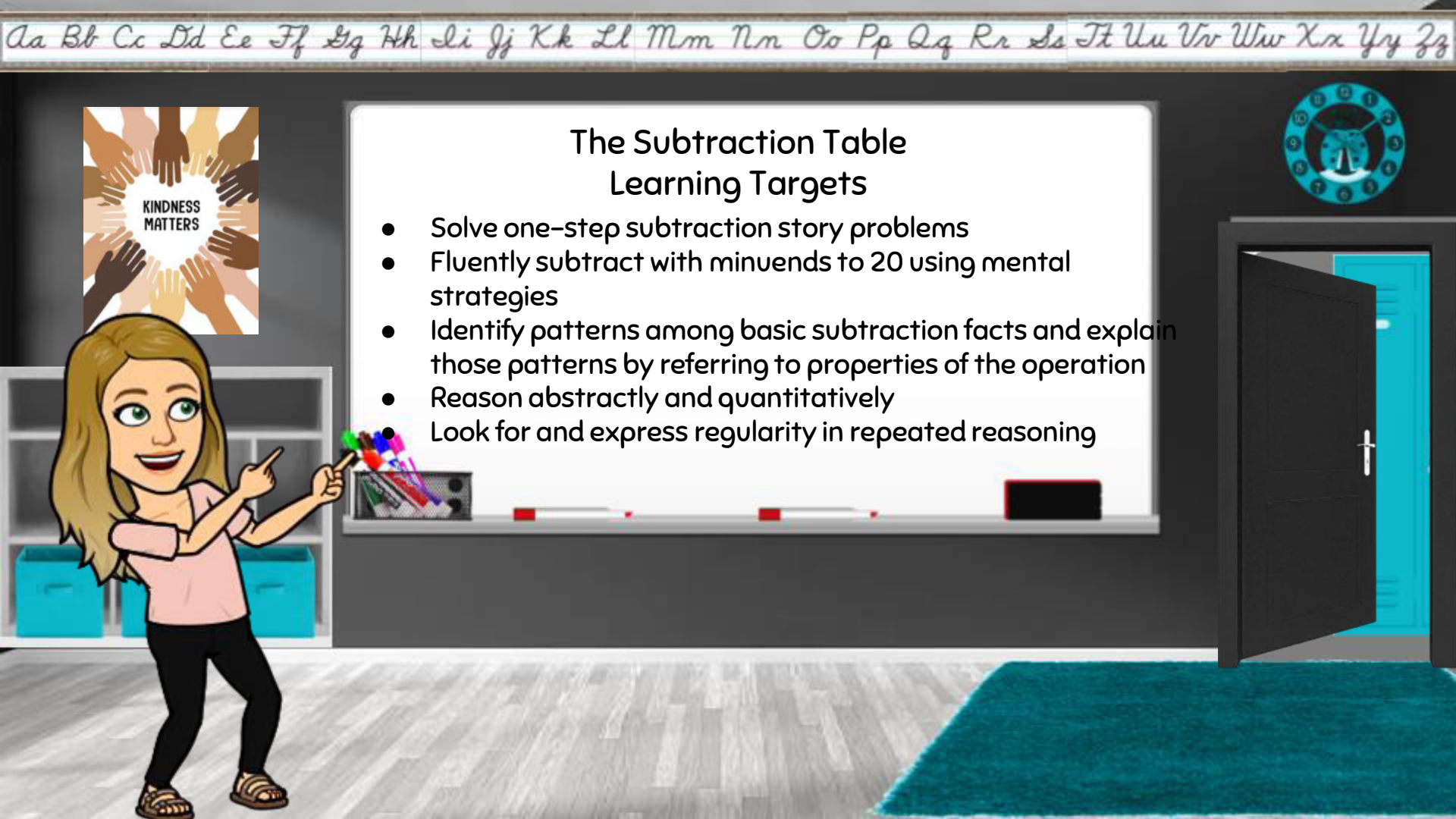
Session 2
Subtraction Table Pt. 2

Session 3
Blast Off to Space

Session 4
Addition and Subtraction Equations

Session 5
Workplace Support



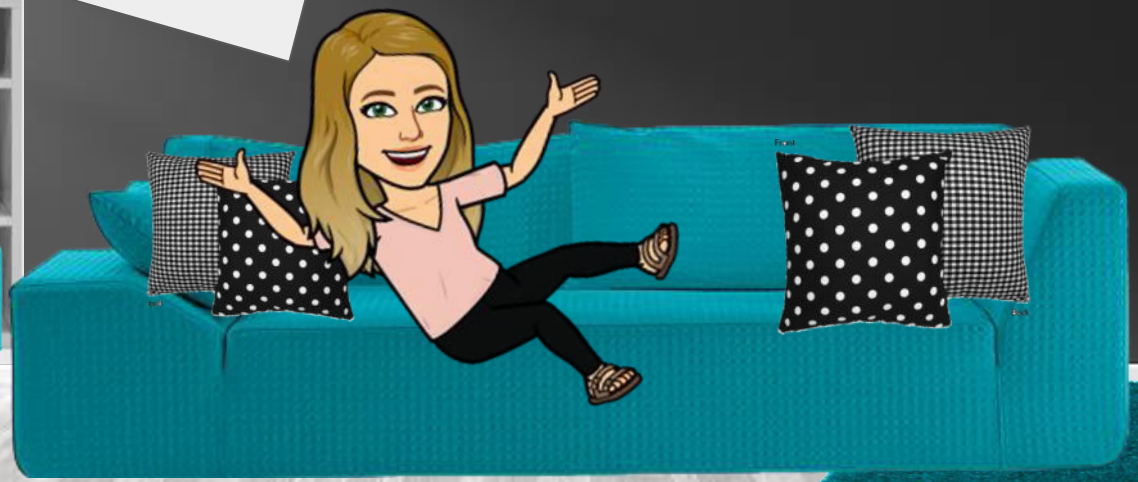


The Subtraction Table
Learning Targets

- Solve one-step subtraction story problems
- Fluently subtract with minuends to 20 using mental strategies
- Identify patterns among basic subtraction facts and explain those patterns by referring to properties of the operation
- Reason abstractly and quantitatively
- Look for and express regularity in repeated reasoning

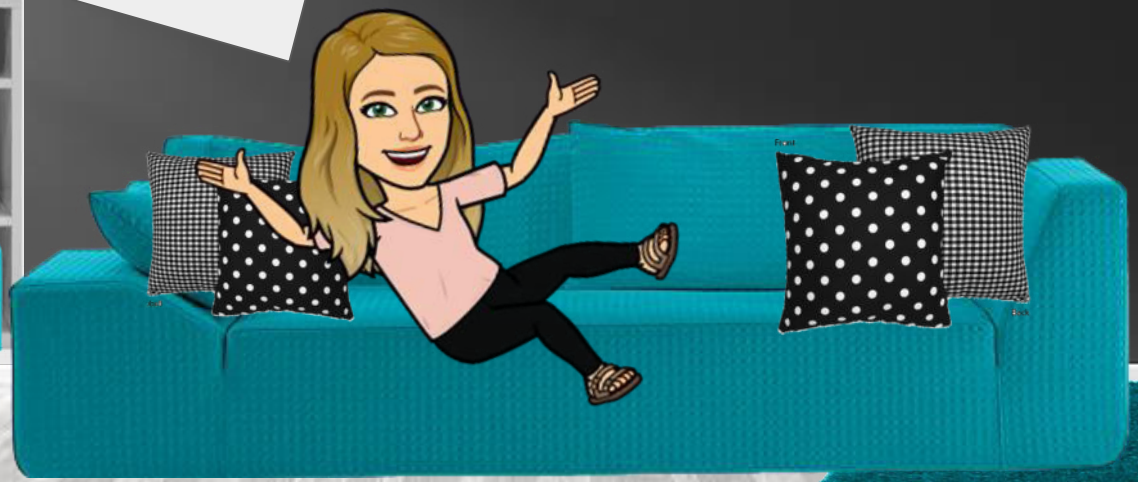
Story Time!

I was sitting on a bench in the park, watching squirrels eat acorns. I watched them for awhile, and one in particular caught my eye. This squirrel had collected a whole bunch of acorns. I counted the acorns and there were 12. As I watched, the squirrel nibbled away, eating 8 of the acorns. Then, the squirrel swept the remaining acorns into a hole and scurried away. How could we figure out how many acorns the squirrel had left?



Story Time!

I noticed other busy squirrels in the park, too. They were all collecting piles of acorns. One squirrel had 8 acorns. Another squirrel had 12 acorns. I was thinking about the difference between the squirrels' piles of acorns. I wondered how many more acorns the squirrel with 12 acorns had than the squirrel with 8 acorns.

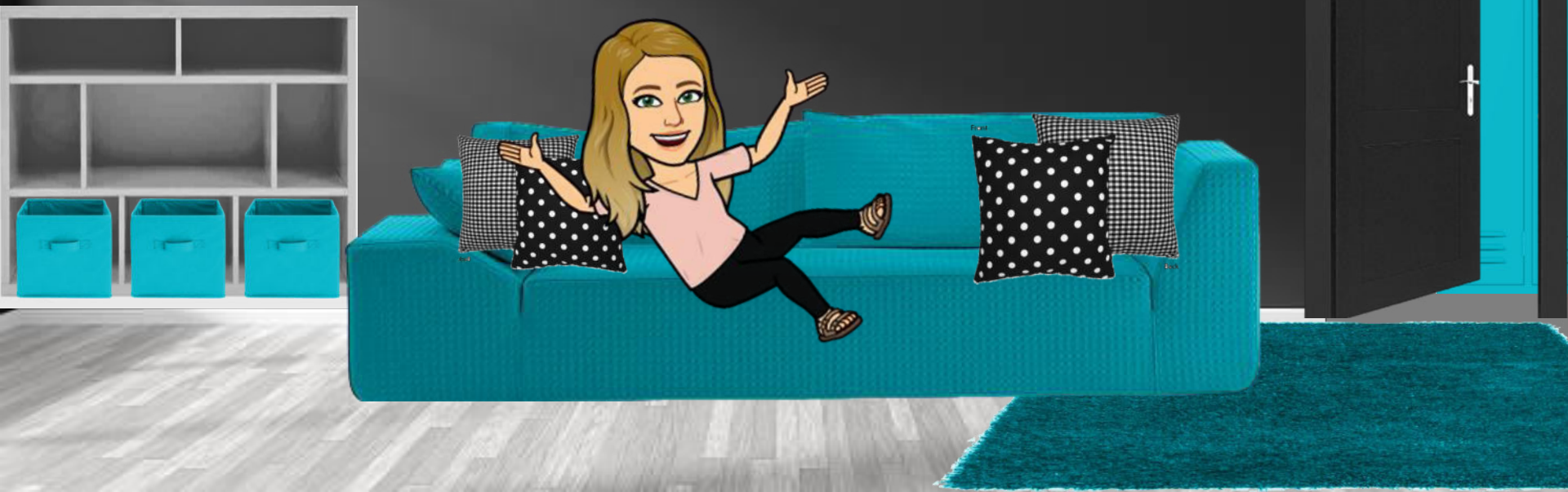


Compare the two equations:

8 + ___ = 12

12 – 8 = ___

How are the two stories different, even though they both use subtraction?



Items you will need today.....

Subtraction Table

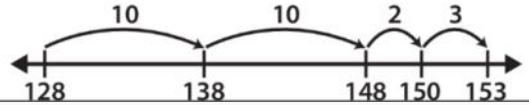
–	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
4					0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5						0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6							0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
7								0	1	2	3	4	5	6	7	8	9	10	11	12	13
8									0	1	2	3	4	5	6	7	8	9	10	11	12
9										0	1	2	3	4	5	6	7	8	9	10	11
10											0	1	2	3	4	5	6	7	8	9	10
11												0	1	2	3	4	5	6	7	8	9
12													0	1	2	3	4	5	6	7	8
13														0	1	2	3	4	5	6	7
14															0	1	2	3	4	5	6
15																0	1	2	3	4	5
16																	0	1	2	3	4
17																		0	1	2	3
18																			0	1	2
19																				0	1
20																					0

Legend

Vocabulary

difference

$$\begin{array}{r} 6\square\square\square\square\square\square \\ -\,4\quad\ \square\square\square\square \\ \hline 2\square\square \end{array}$$

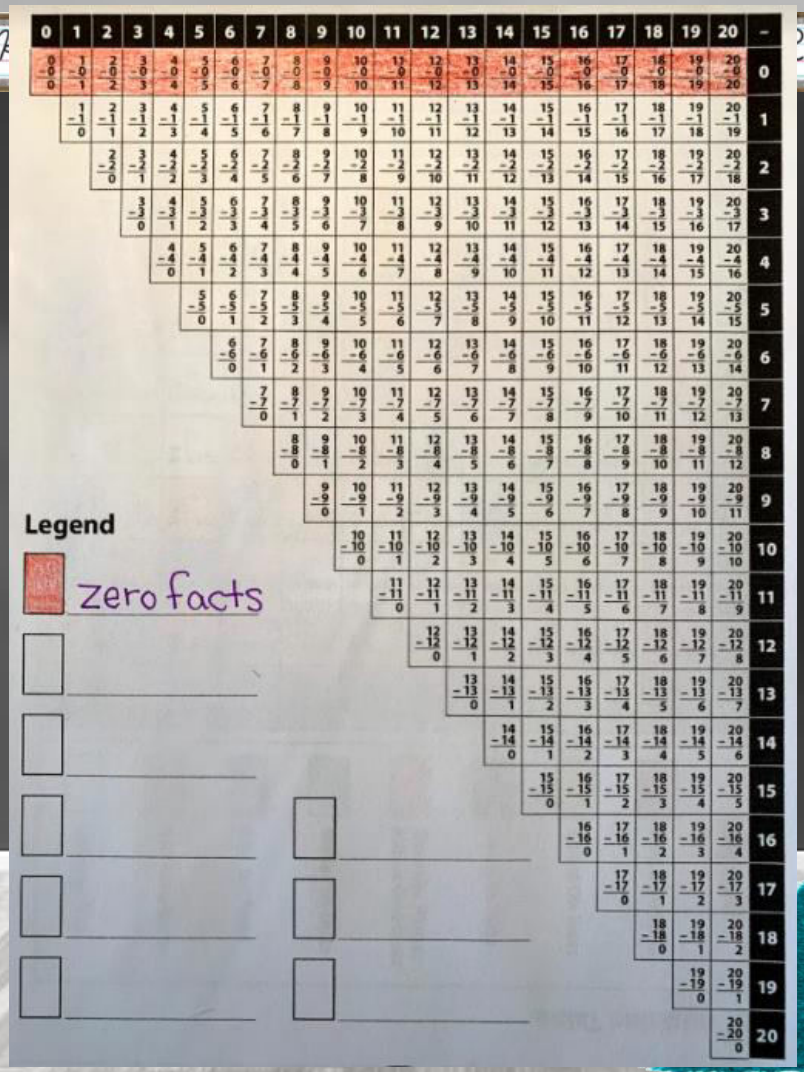


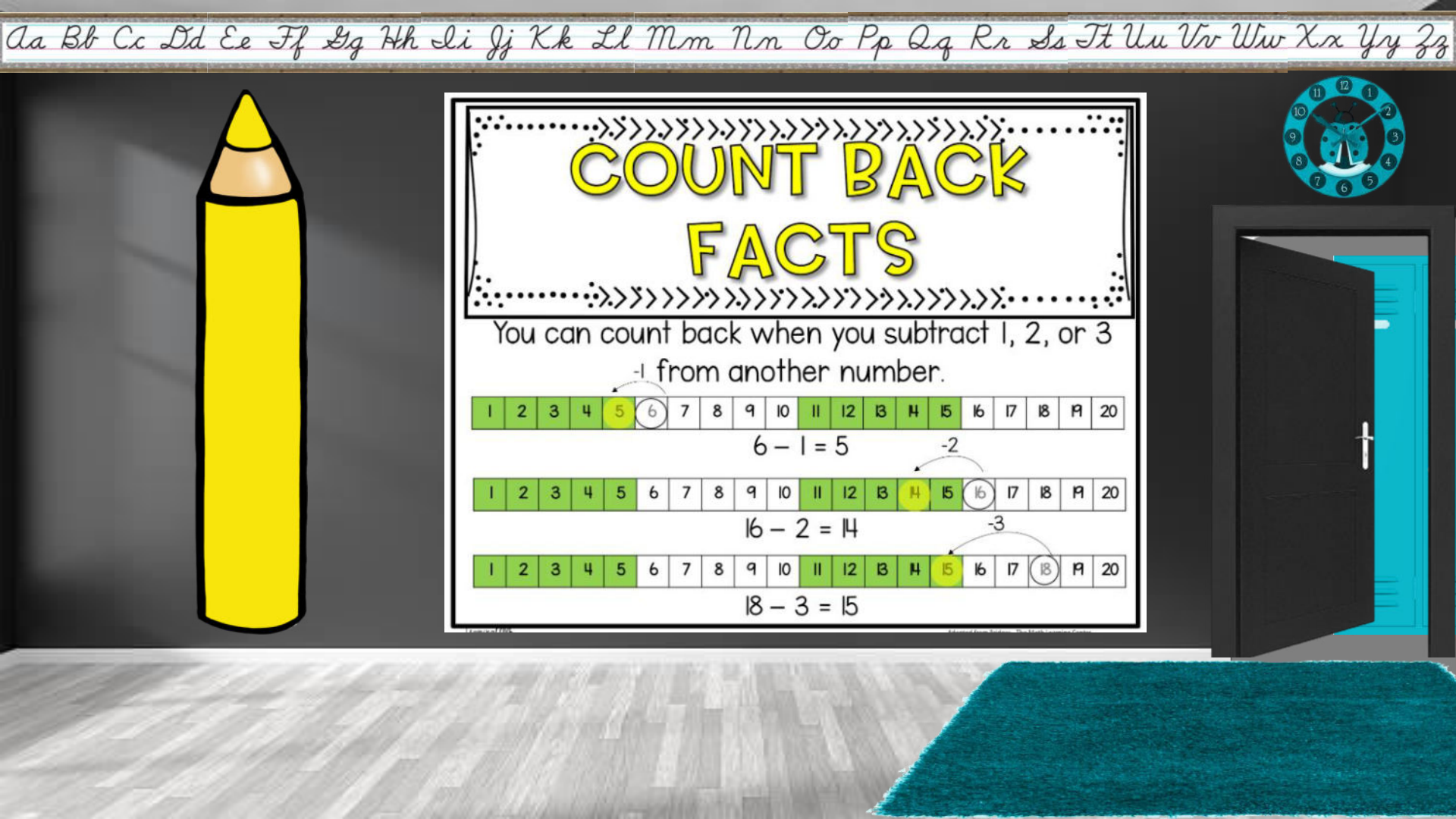
ZERO FACTS

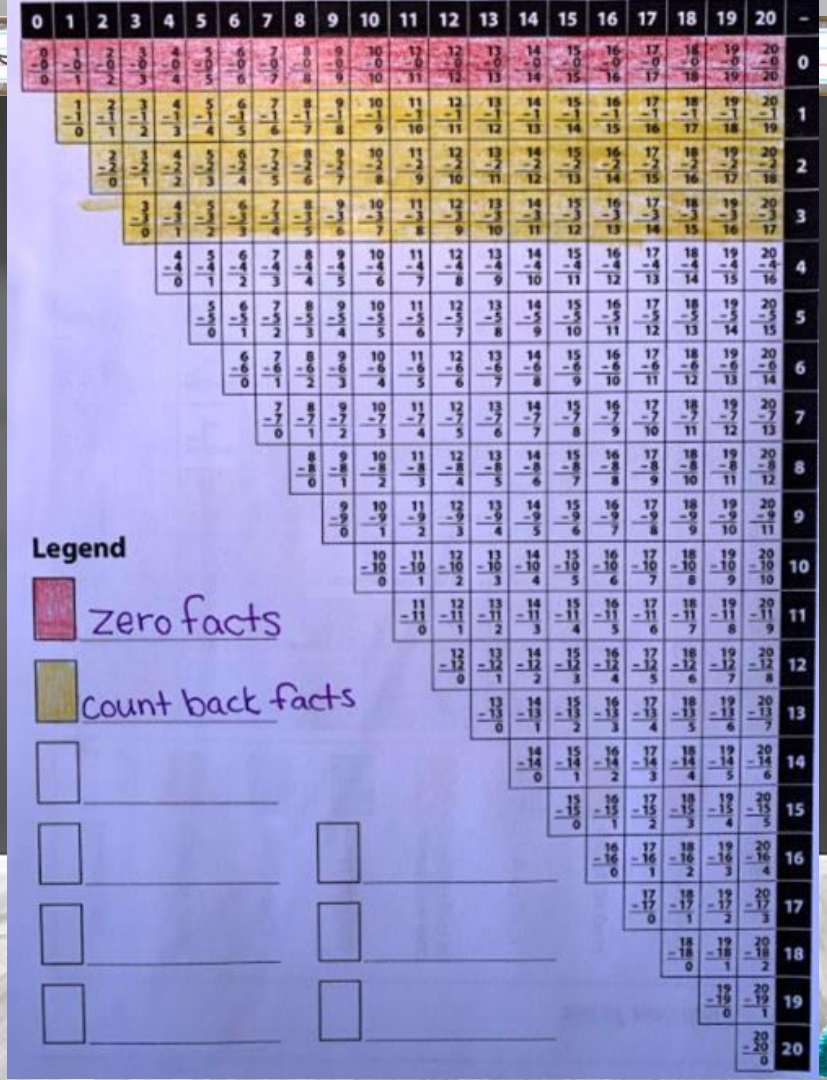
When you subtract 0 from any number, the difference is always the number you started with.

11 – 0 = 11

18 – 0 = 18


Legend
zero facts

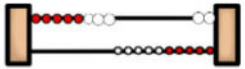

COUNT BACK FACTS
You can count back when you subtract 1, 2, or 3 from another number.
-1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
6 – 1 = 5
-2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
16 – 2 = 14
-3
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
18 – 3 = 15


Legend
zero facts
count back facts

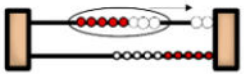
TAKE ALL FACTS

Any number minus itself is always 0

8 – 8 = 0



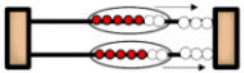
First I will show 8 on my number rack.



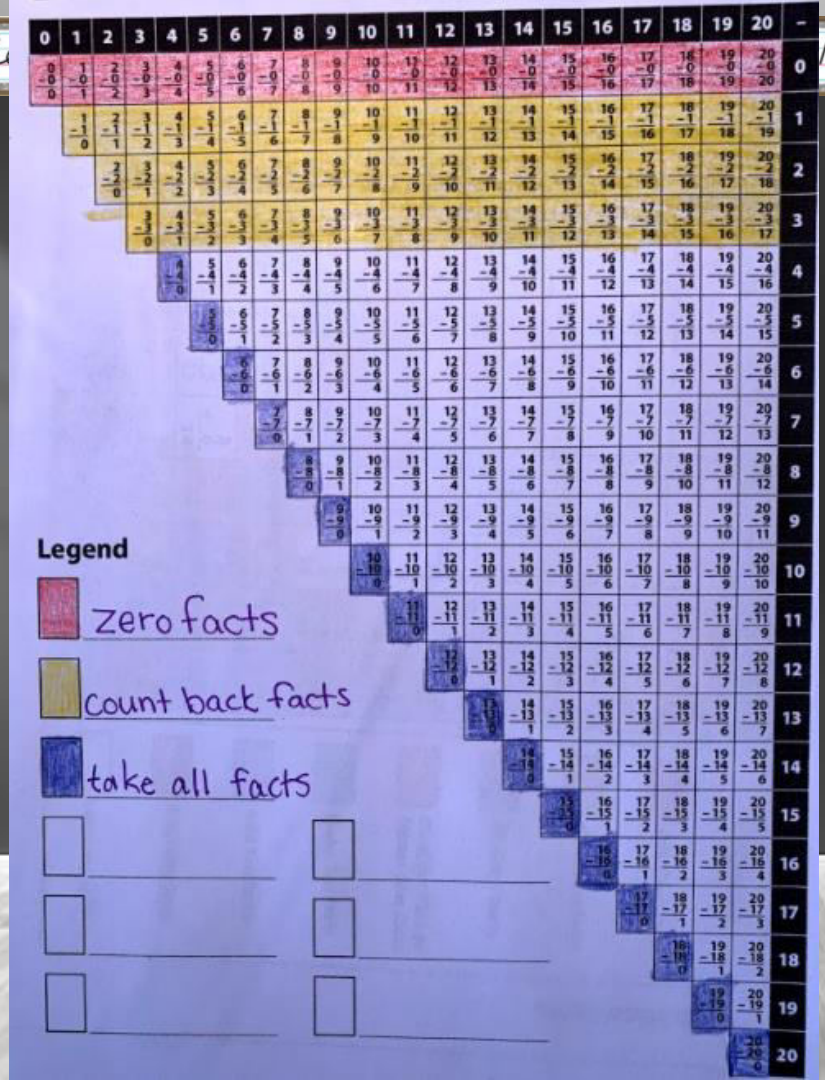
Now I will subtract all 8 by pushing them back. There are 0 left.

14 - 14= 0

I pushed over 7 on top and 7 on the bottom to make 14.



When I subtract all 14 by pushing them back to start, there aren't any left.

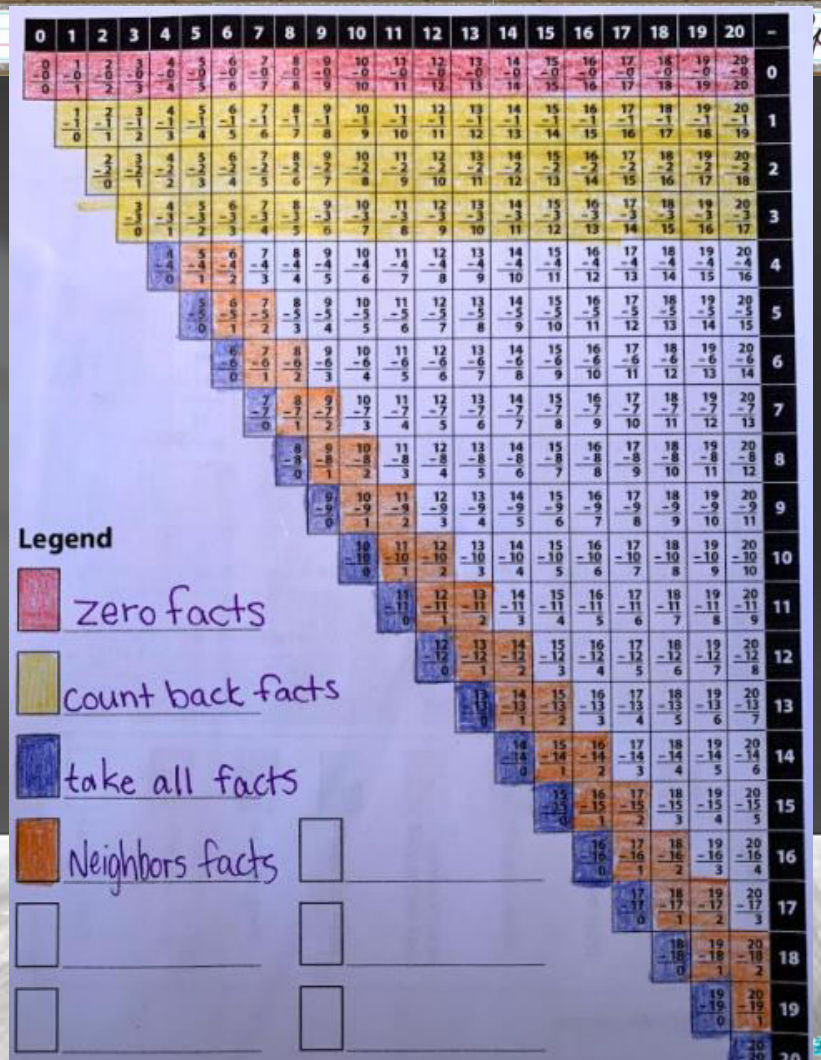

Legend
zero facts
count back facts
take all facts

NEIGHBOR FACTS

The difference between two numbers that live next door to each other, or almost next door, is always 1 or 2.

8 – 7 = 1 The difference between 8 and 7 is 1

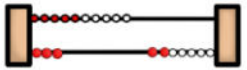
14 – 12 = 12 The difference between 14 and 12 is 2


Legend
zero facts
count back facts
take all facts
Neighbors facts

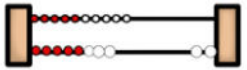
Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

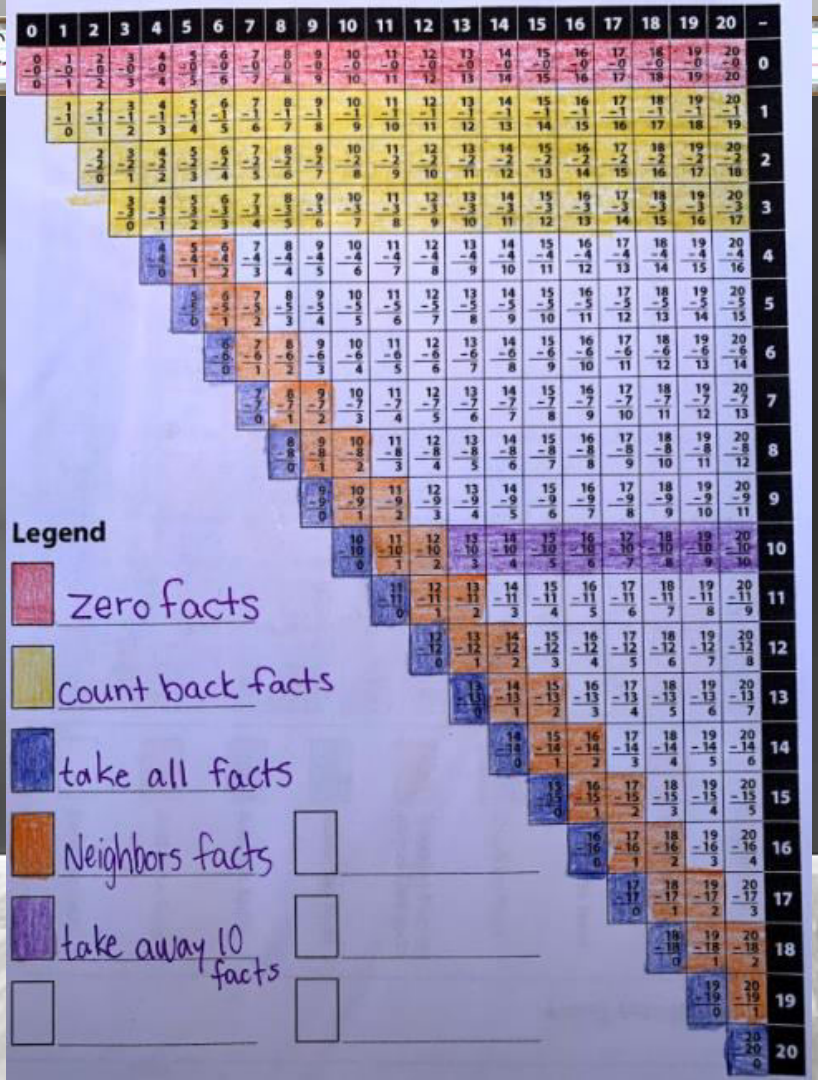
TAKE AWA
FACT

When you subtract 10 from a te
ones are lef



13 - 10 = 3



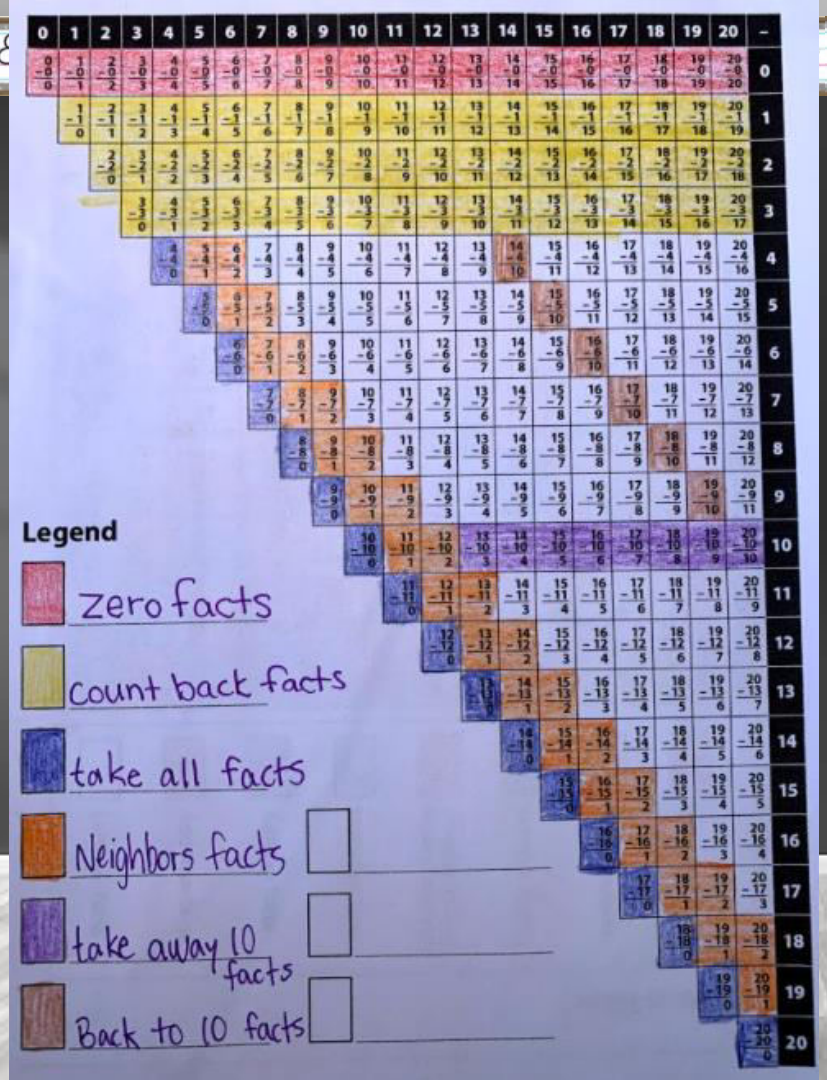

Legend
zero facts
count back facts
take all facts
Neighbors facts
take away 10 facts

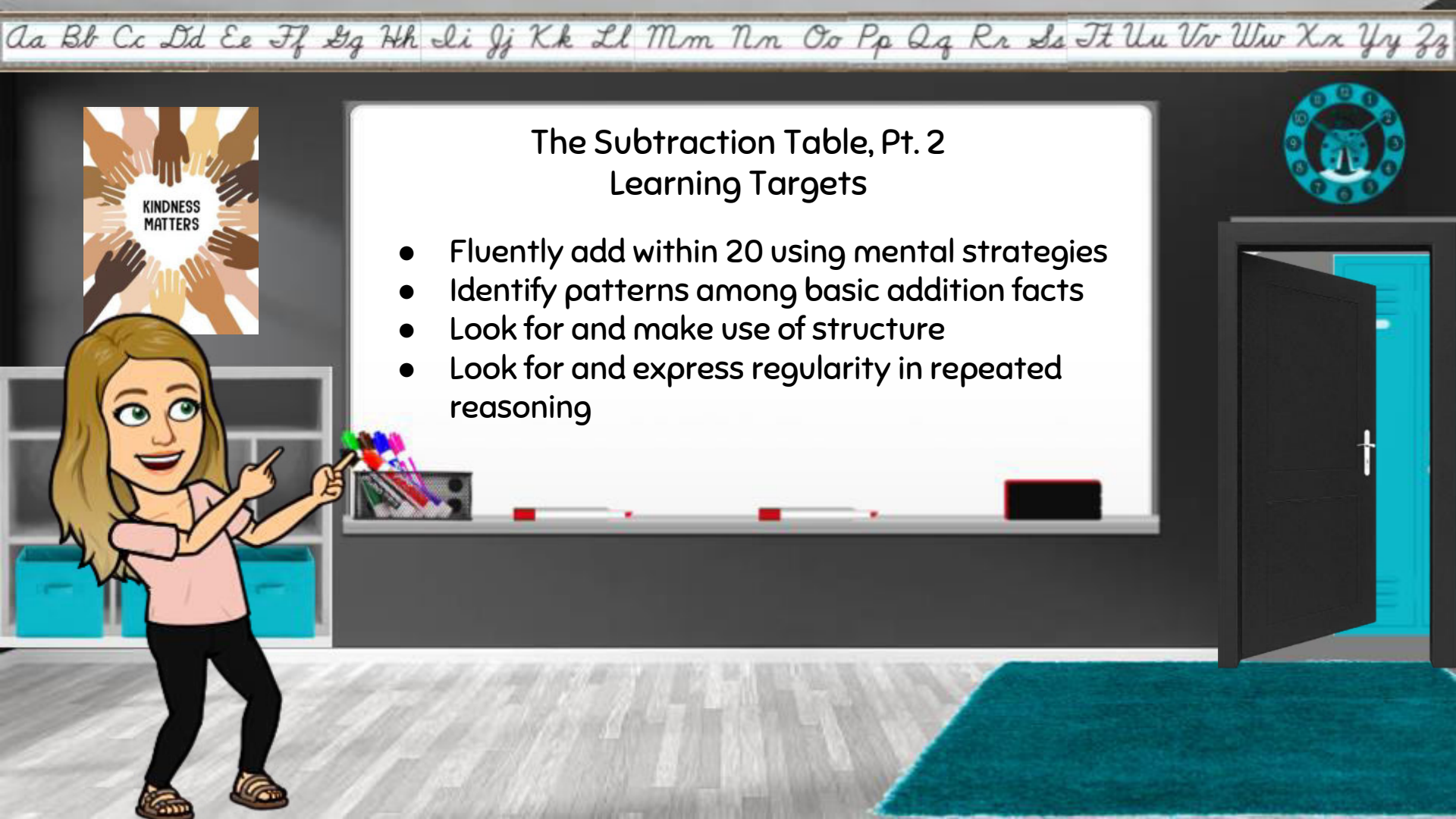
BACK TO TEN FACTS

When you subtract all the ones from a teen number, all you have left is 10.

13 - 3 = 10

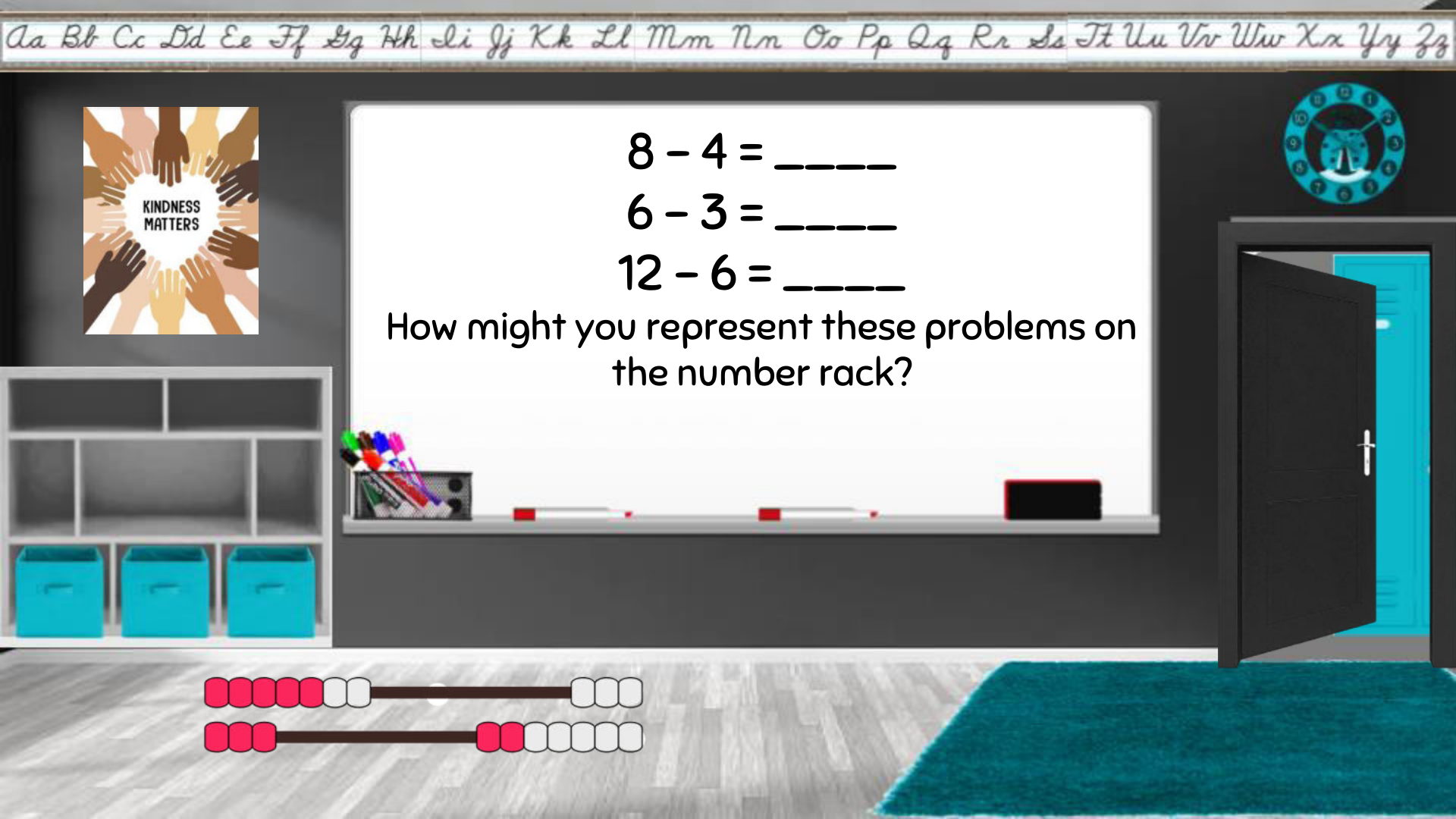
18 – 8 = 10


Legend
zero facts
count back facts
take all facts
Neighbors facts
take away 10 facts
Back to 10 facts



The Subtraction Table, Pt. 2
Learning Targets

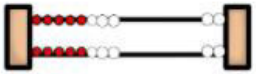
- Fluently add within 20 using mental strategies
- Identify patterns among basic addition facts
- Look for and make use of structure
- Look for and express regularity in repeated reasoning


8 – 4 = _____
6 – 3 = _____
12 – 6 = _____
How might you represent these problems on the number rack?
KINDNESS MATTERS

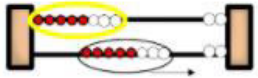
TAKE HALF FACTS

When you subtract half of a number, the answer matches the number you subtracted. Can you explain why?

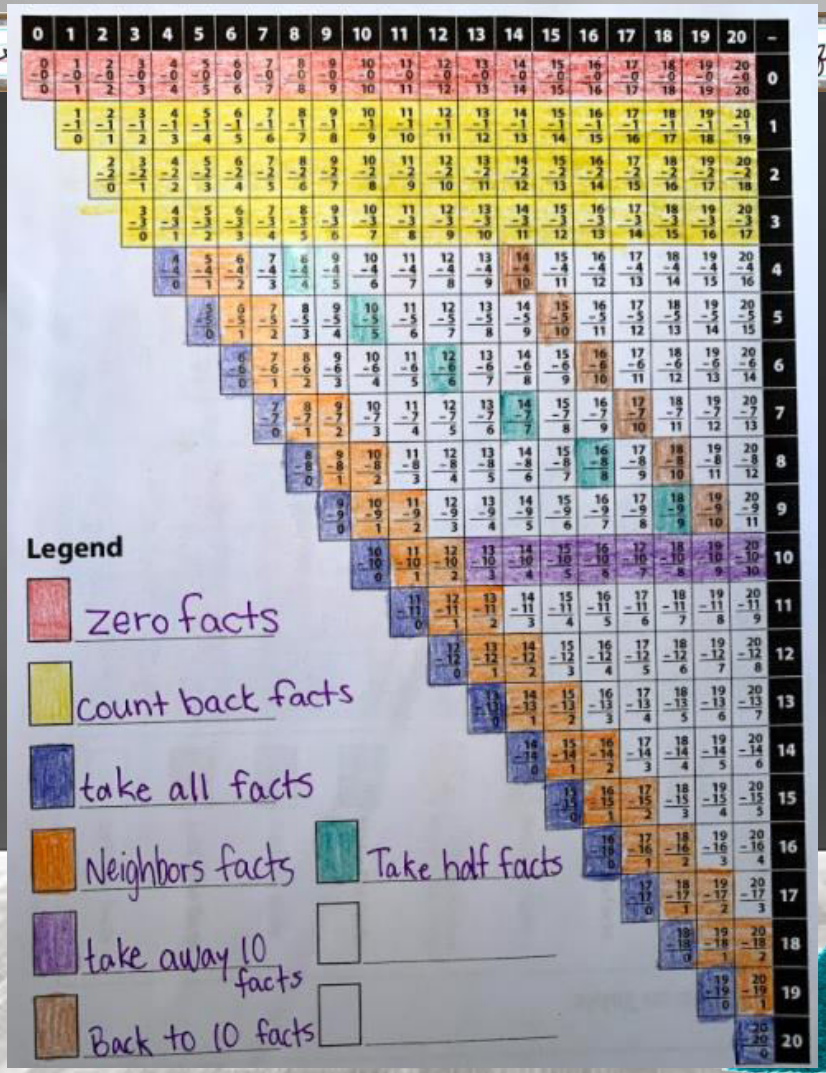
16 – 8 = 8



I slide over 16 beads, 8 on top and 8 on the bottom.



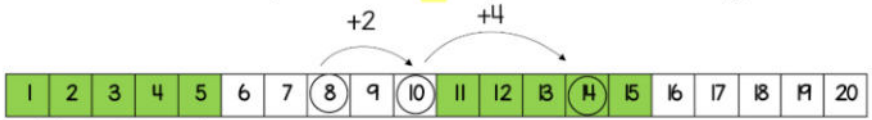
When I subtract 8 by pushing all of the beads on the bottom row back to the start, there are still 8 on top.


Legend
zero facts
count back facts
take all facts
Neighbors facts
Take half facts
take away 10 facts
Back to 10 facts

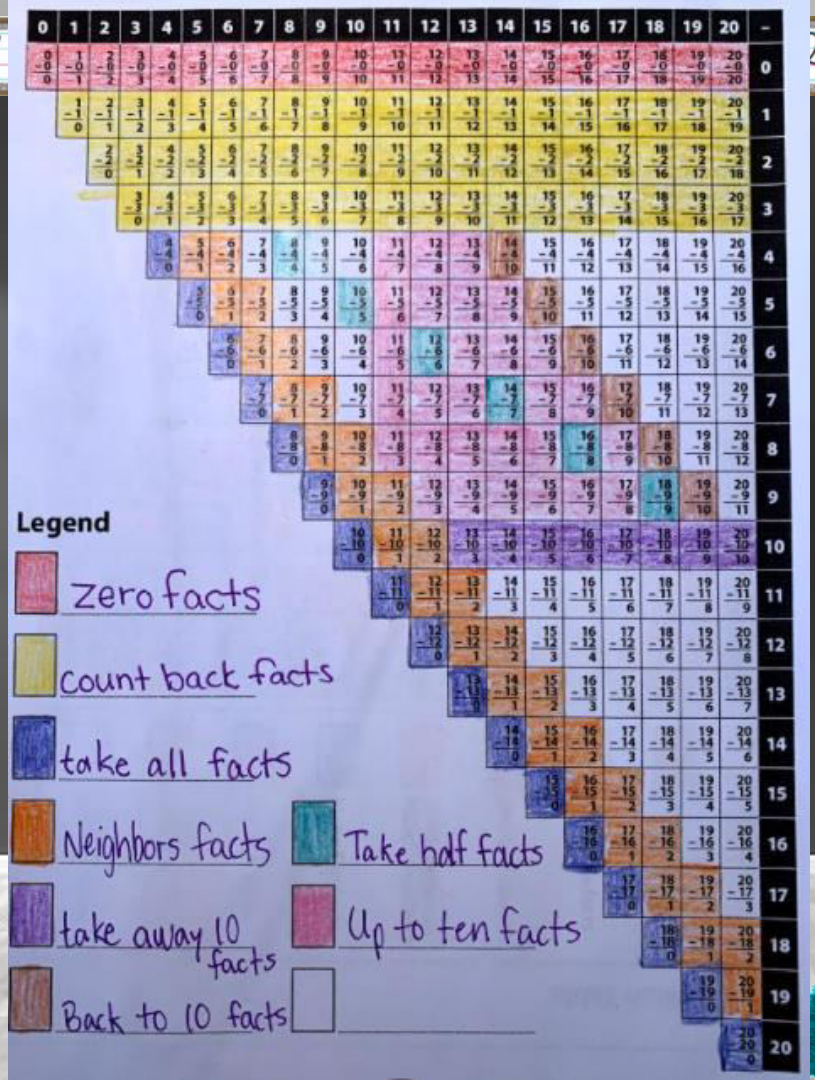
UP TO TEN FACTS

To use the Up to Ten strategy, add to the smaller number to make ten. Then add more to reach the larger number. The total amount you add is the difference.

To subtract 8 from 14, think of 8 + 2 = 10, then add 4 more to get 14.



14 − 8 = 6 The difference between 14 and 8 is 6

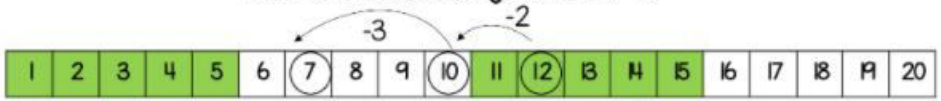

Legend
zero facts
count back facts
take all facts
Neighbors facts
Take half facts
take away 10 facts
Up to ten facts
Back to 10 facts

What do you notice about the table?

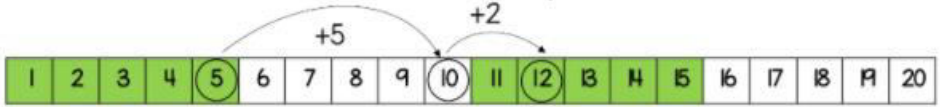
LEFTOVER FACTS

The leftover facts can be solved many different ways, using different strategies.

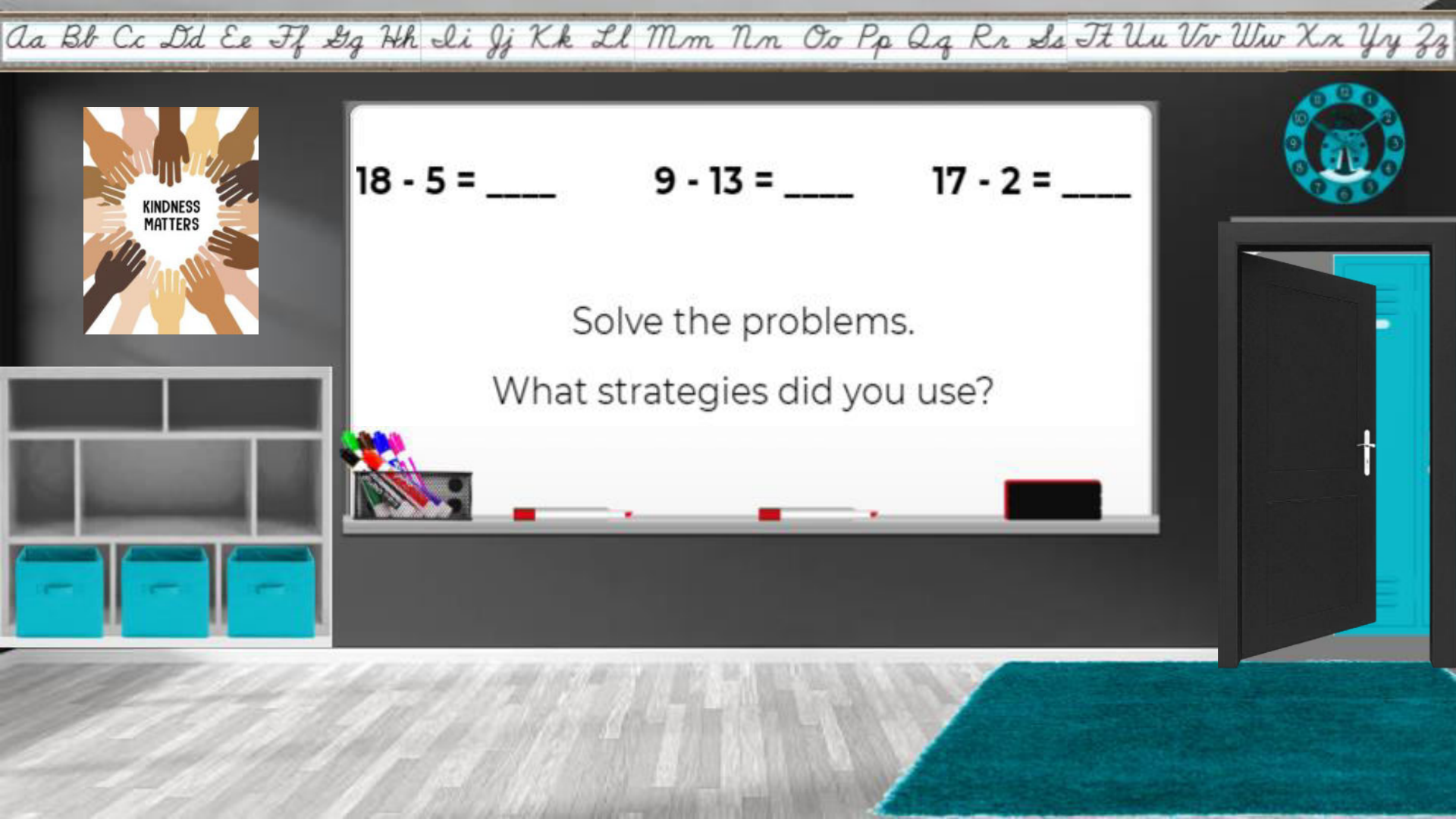
Here are two strategies for 12 - 5

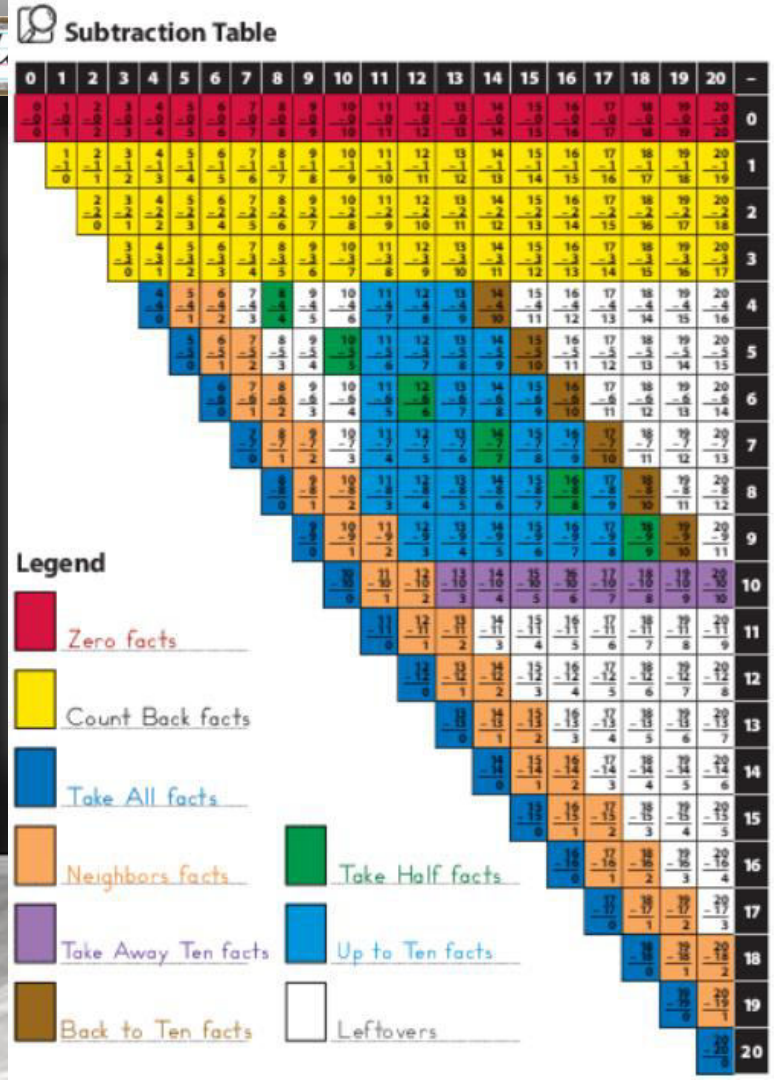


12 – 2 = 10 and 10 – 3 = 7, so 12 – 5 = 7



12 – 5 = 7 The difference between 12 and 5 is 7


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
18 - 5 = ____
9 - 13 = ____
17 - 2 = ____
Solve the problems.
What strategies did you use?

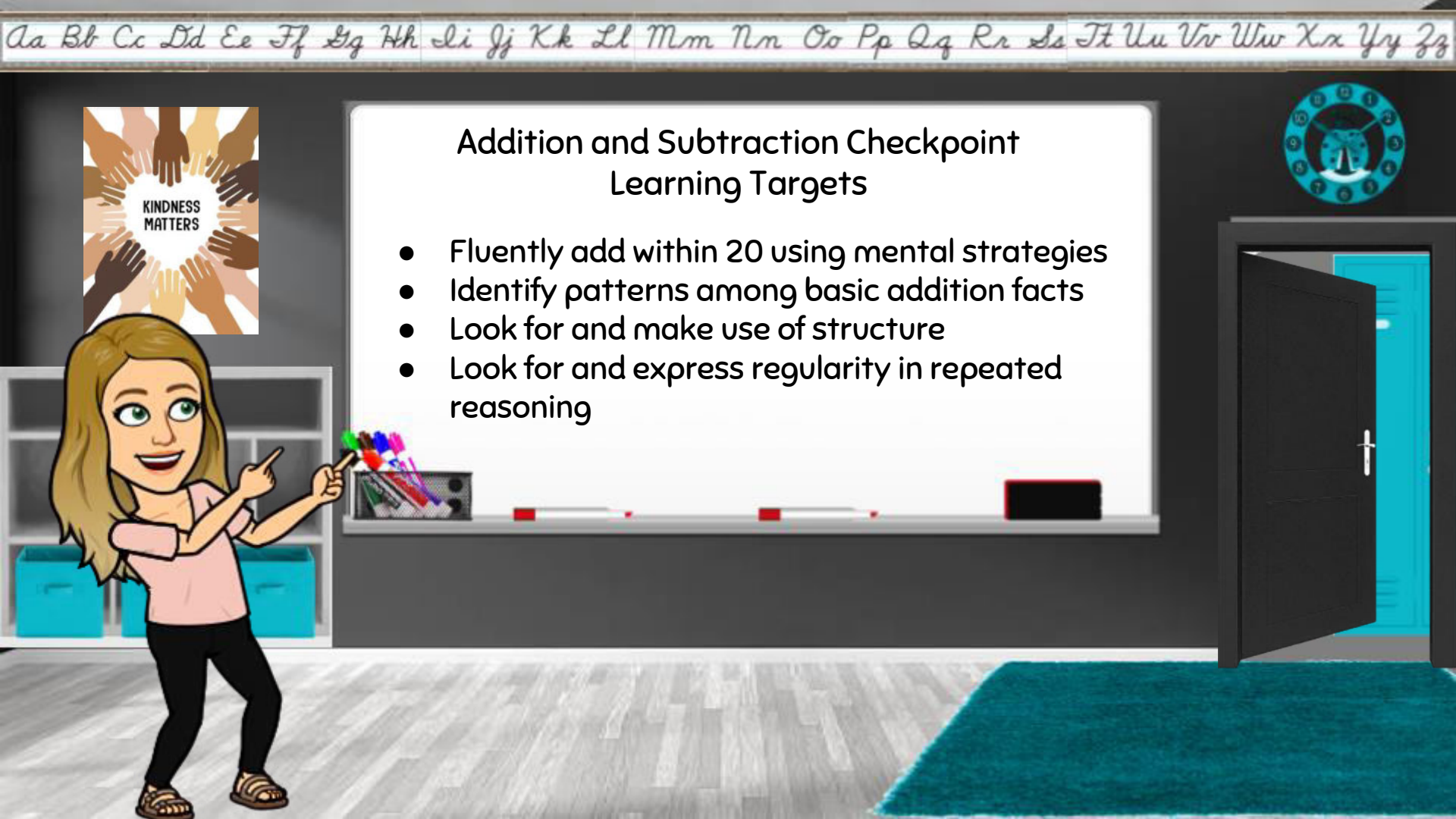


What patterns do you see?

Target Twenty 1B Workplace

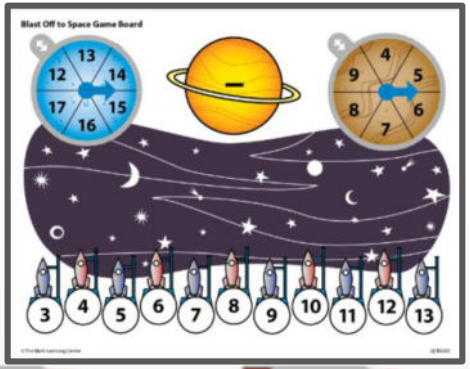
One Player Instruction Video

Game Board


Addition and Subtraction Checkpoint
Learning Targets
Fluently add within 20 using mental strategies
Identify patterns among basic addition facts
Look for and make use of structure
Look for and express regularity in repeated reasoning
KINDNESS MATTERS

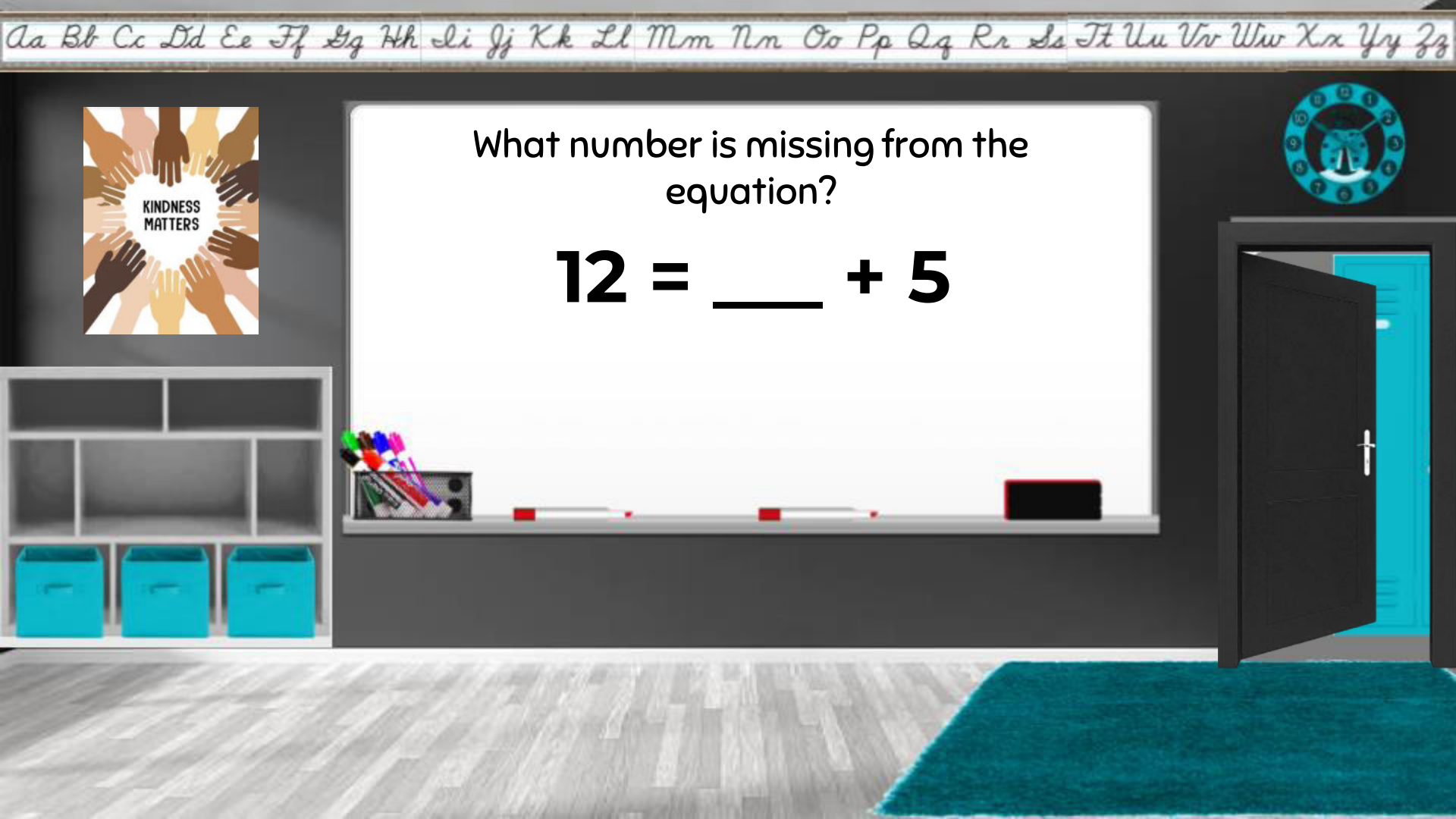
Blast Off to Space 1C Workplace

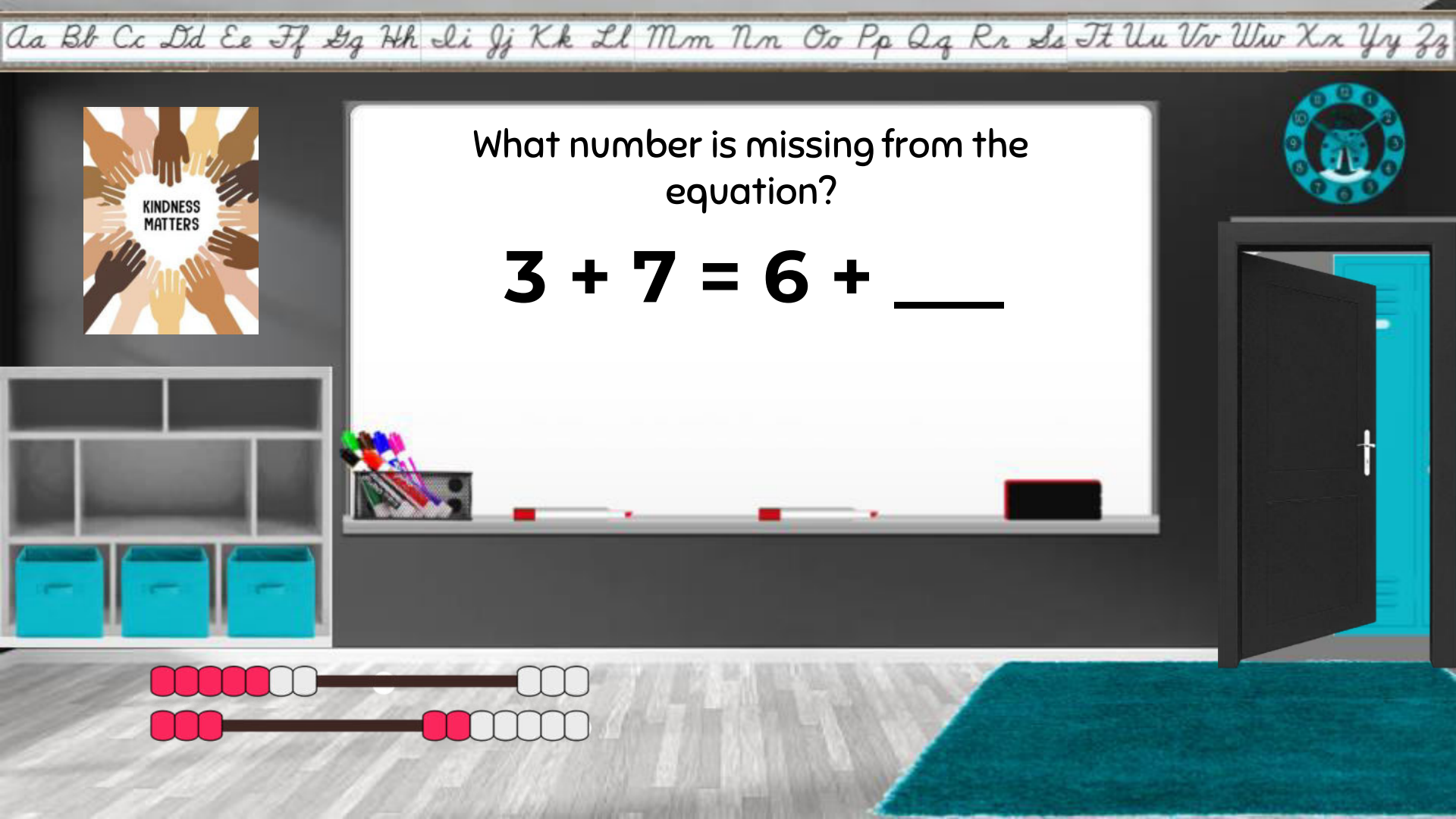
Game Board

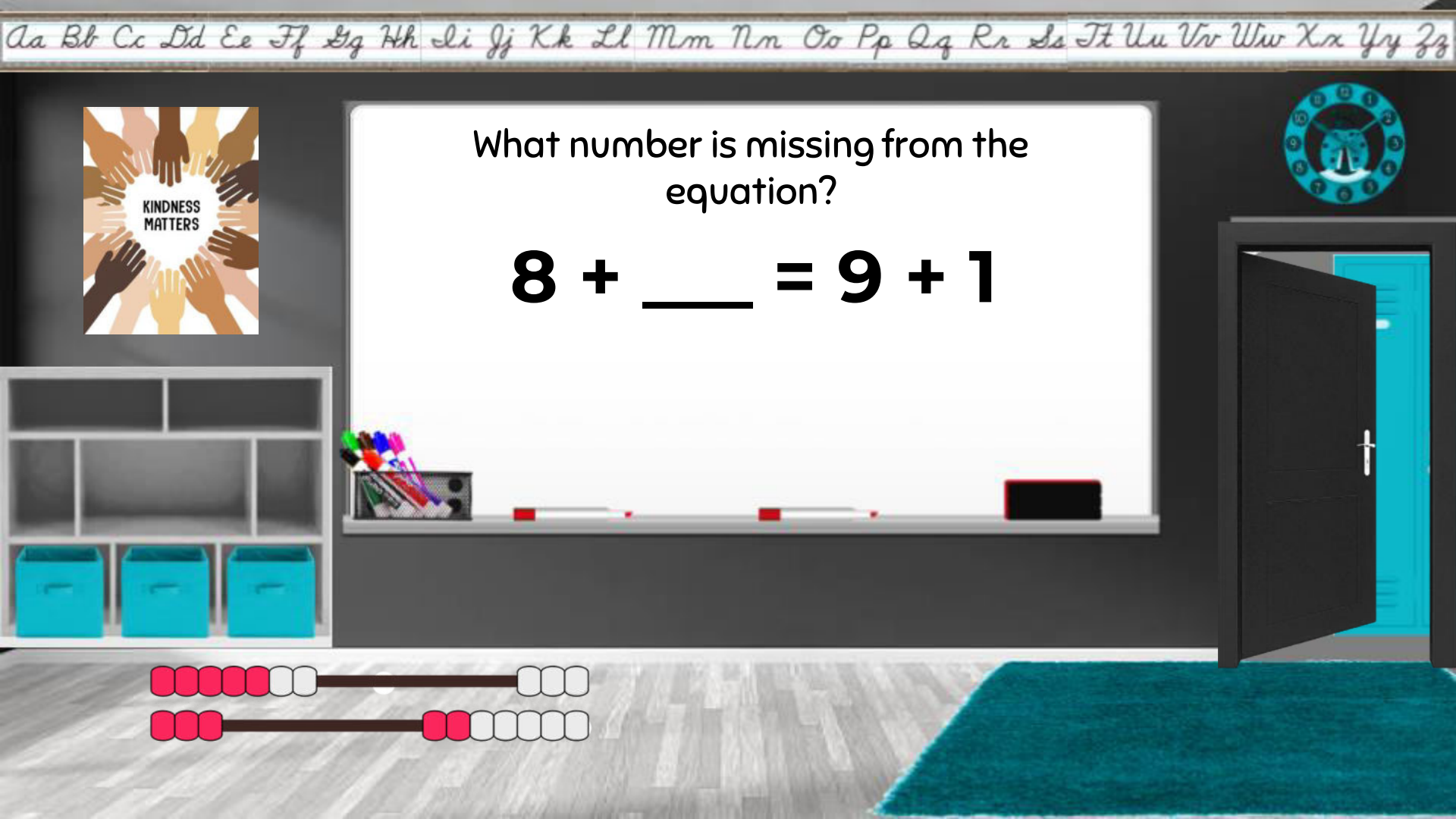


Addition and Subtraction Equations
Learning Targets

- Fluently add within 20 using mental strategies
- Identify patterns among basic addition facts
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

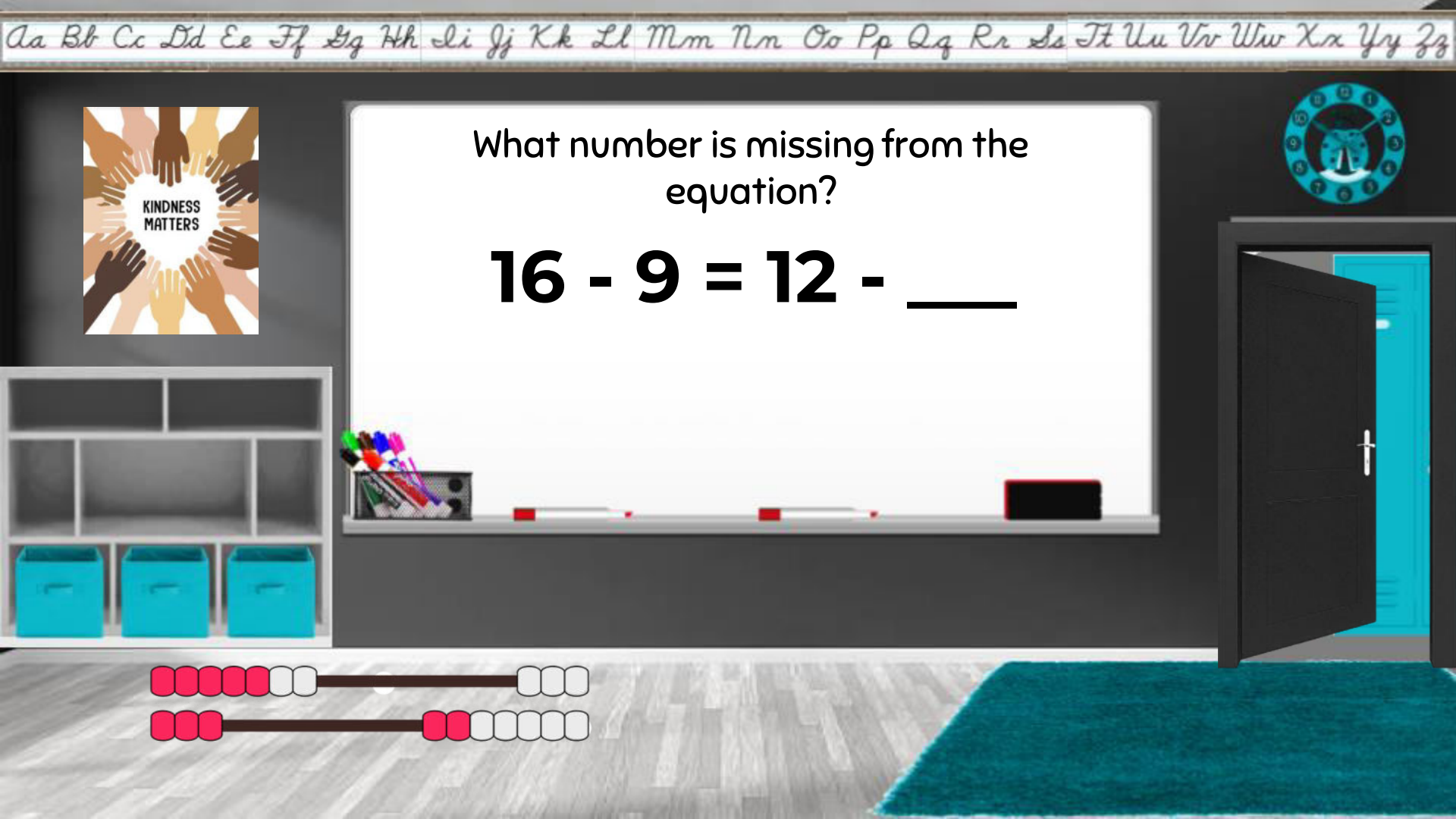

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
What number is missing from the equation?
12 = ___ + 5


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
What number is missing from the equation?
3 + 7 = 6 + ___


What number is missing from the equation?
8 + ___ = 9 + 1
KINDNESS MATTERS

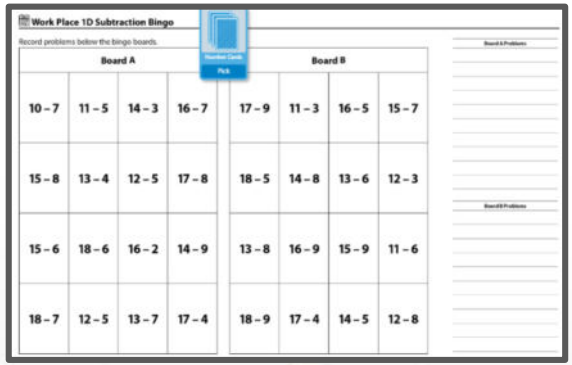
What number is missing from the equation?

$$n + 9 = 4 + 8$$


What number is missing from the equation?
16 - 9 = 12 - ___
KINDNESS MATTERS

Subtraction Bingo 1D Workplace

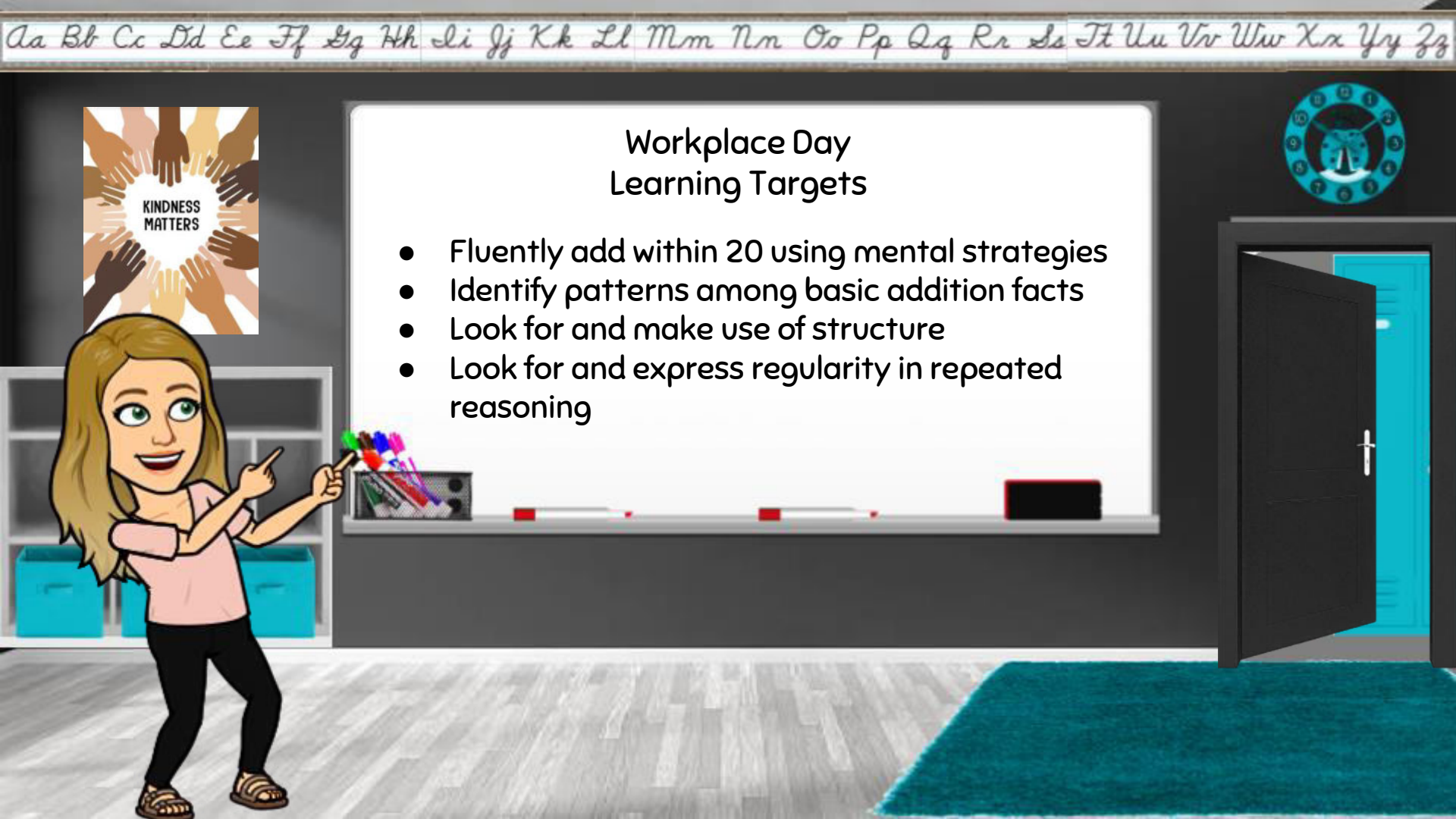
Game Board



Work Place 1D Subtraction Bingo

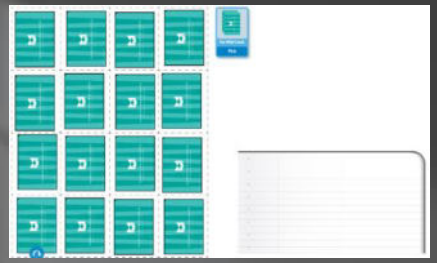
Record problems below the bingo boards.

Board A				Board B			
10 – 7	11 – 5	14 – 3	16 – 7	17 – 9	11 – 3	16 – 5	15 – 7
15 – 8	13 – 4	12 – 5	17 – 8	18 – 5	14 – 8	13 – 6	12 – 3
15 – 6	18 – 6	16 – 2	14 – 9	13 – 8	16 – 9	15 – 9	11 – 6
18 – 7	12 – 5	13 – 7	17 – 4	18 – 9	17 – 4	14 – 5	12 – 8

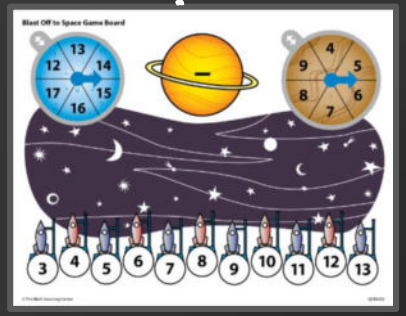

KINDNESS
MATTERS
Workplace Day
Learning Targets
Fluently add within 20 using mental strategies
Identify patterns among basic addition facts
Look for and make use of structure
Look for and express regularity in repeated reasoning

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

Target 10 1A Workplace

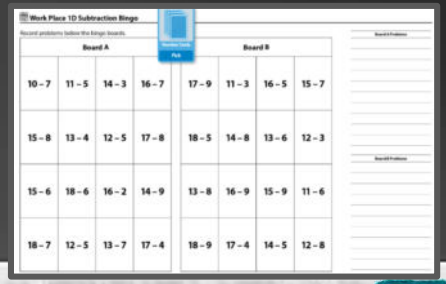


Blast Off to Space 1C Workplace



Target Twenty 1B Workplace

Subtraction Bingo 1D Workplace



Module 3

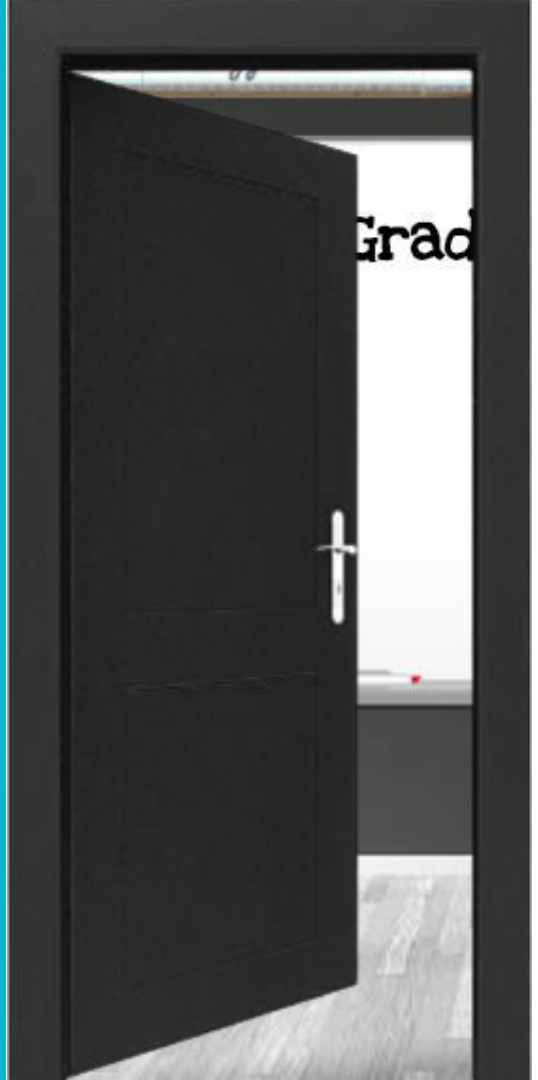
Session 1
Length Scavenger Hunt

Session 2
Adding Lengths

Session 3
Adding Lengths Forum

Session 4
Carrot Grab 1E

Session 5
Strings and Strategies



Adding Length Scavenger Hunt
Learning Targets

- I can measure length to the nearest whole unit.
- I can use strategies to solve addition and subtraction facts.
- I can make sense of problems and persevere in solving them.

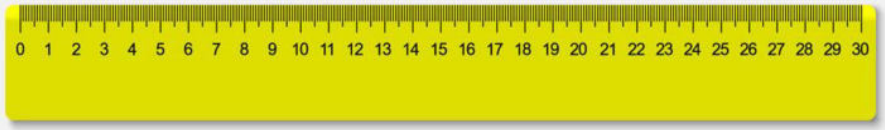
Warm-Up Count Around Game
(Skip Counting by 10s)

Counting by 10s starting with..... 8!

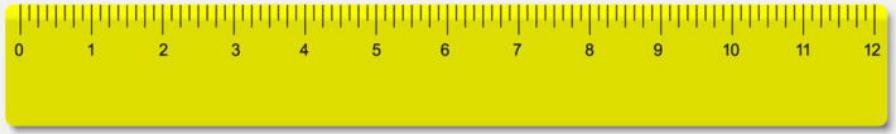
8,

Midiendo longitud

(cm/mm)



(inch)

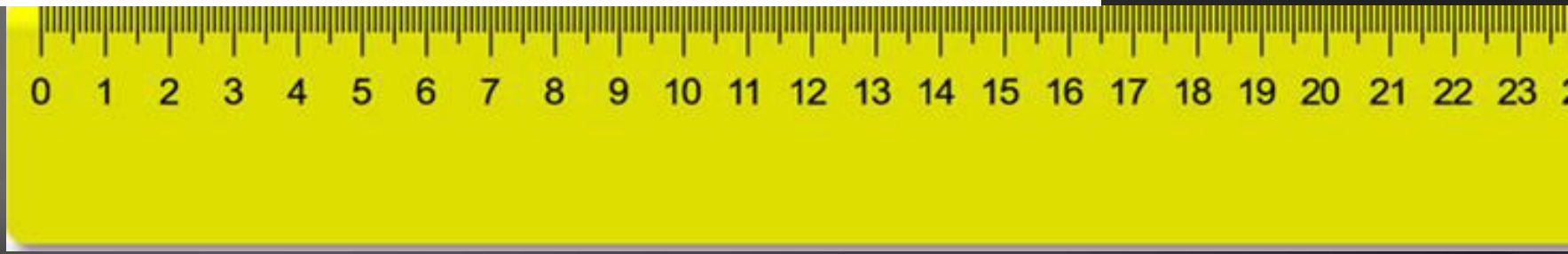


Que tan largo es este objeto?

__cm

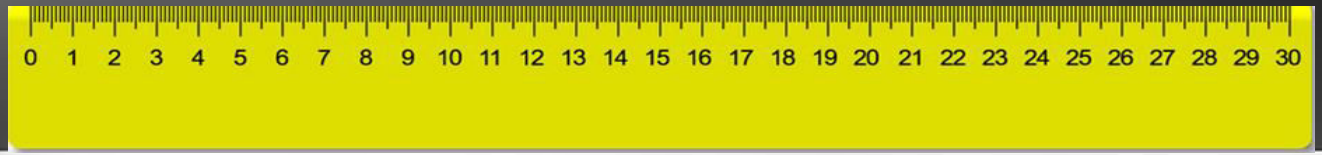
Que tan largo es este objeto?

__cm



Que tan largo es este objeto?

__cm



Que tan largo es este objeto?

__cm

Adding Lengths
Learning Targets

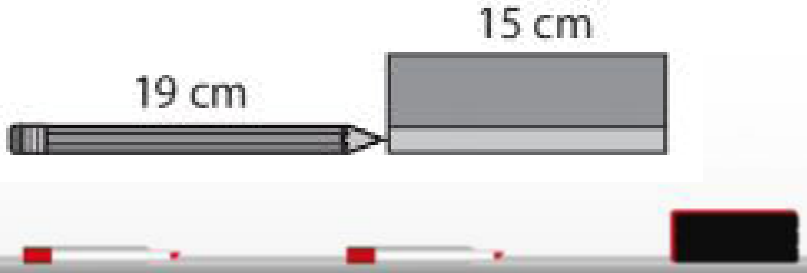
- I can use math strategies to solve 2-digit addition problems.
- I can make sense of a word problem.
- I can write equations to match a word problem.

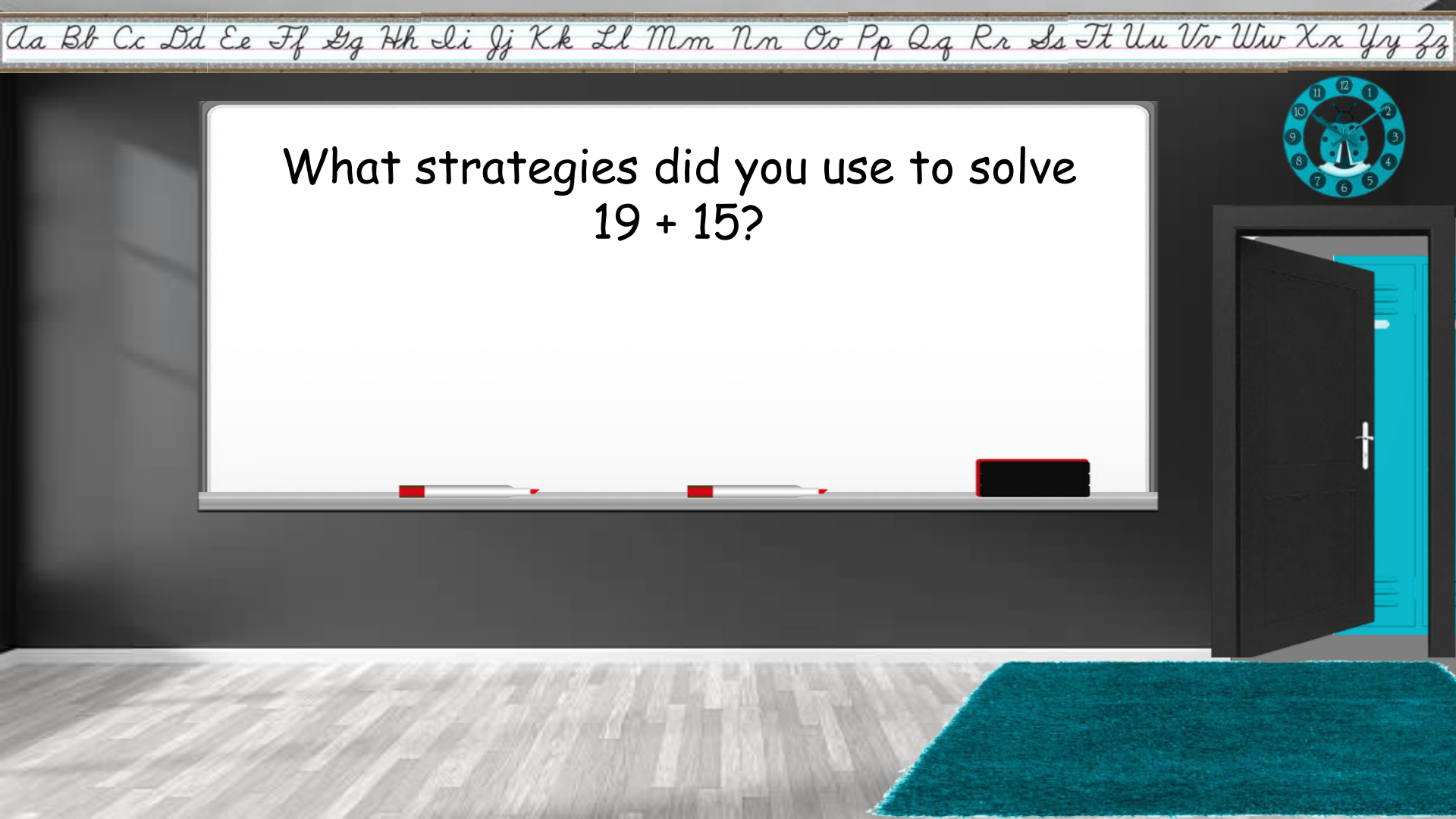
Warm-Up Count Around Game
(Skip Counting by 10s)

Counting by 10s starting with..... 7!

7 ,

How long are the pencil and the whiteboard eraser lined up end to end, 19 centimeters + 15 centimeters?



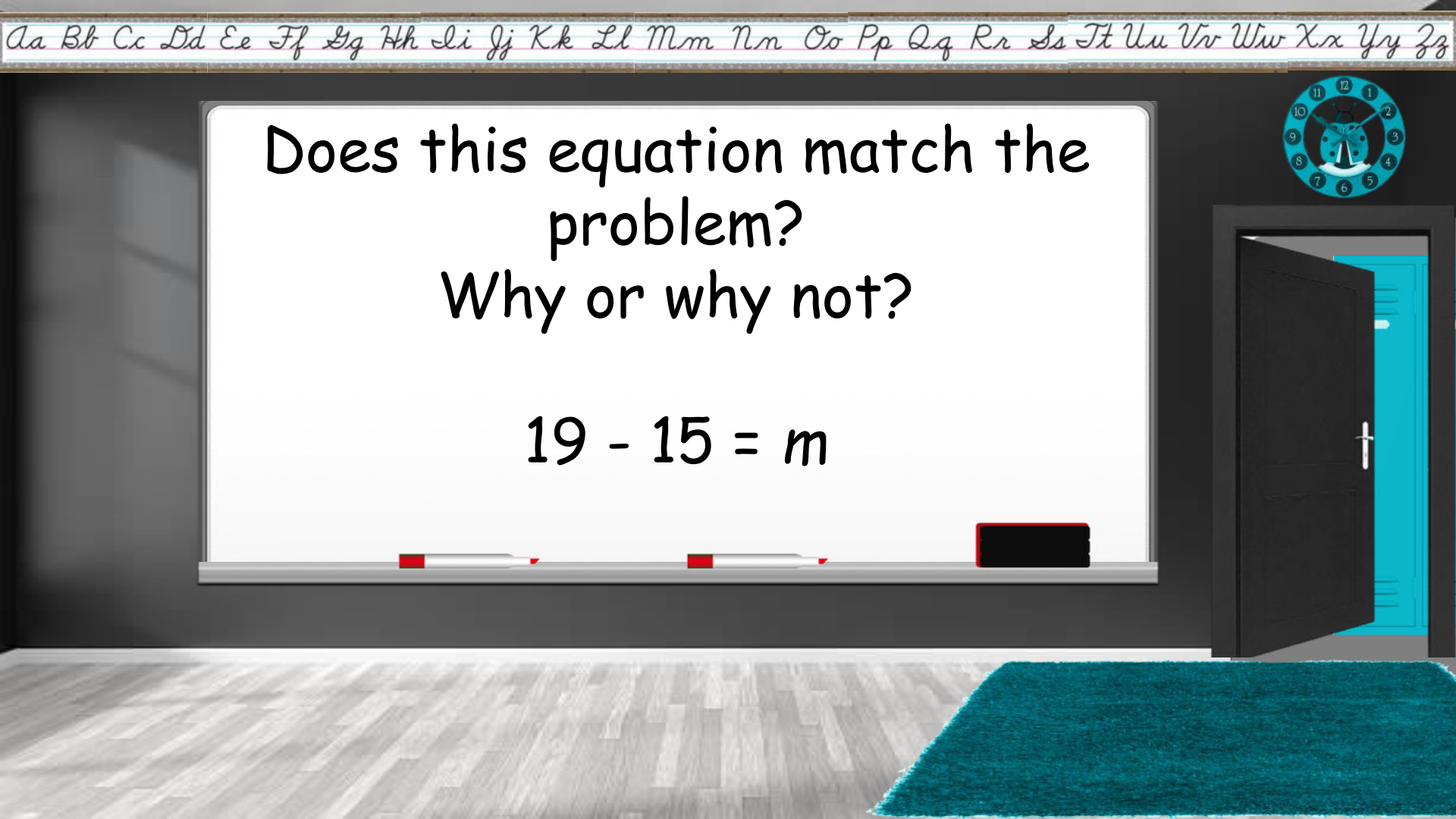

What strategies did you use to solve 19 + 15?

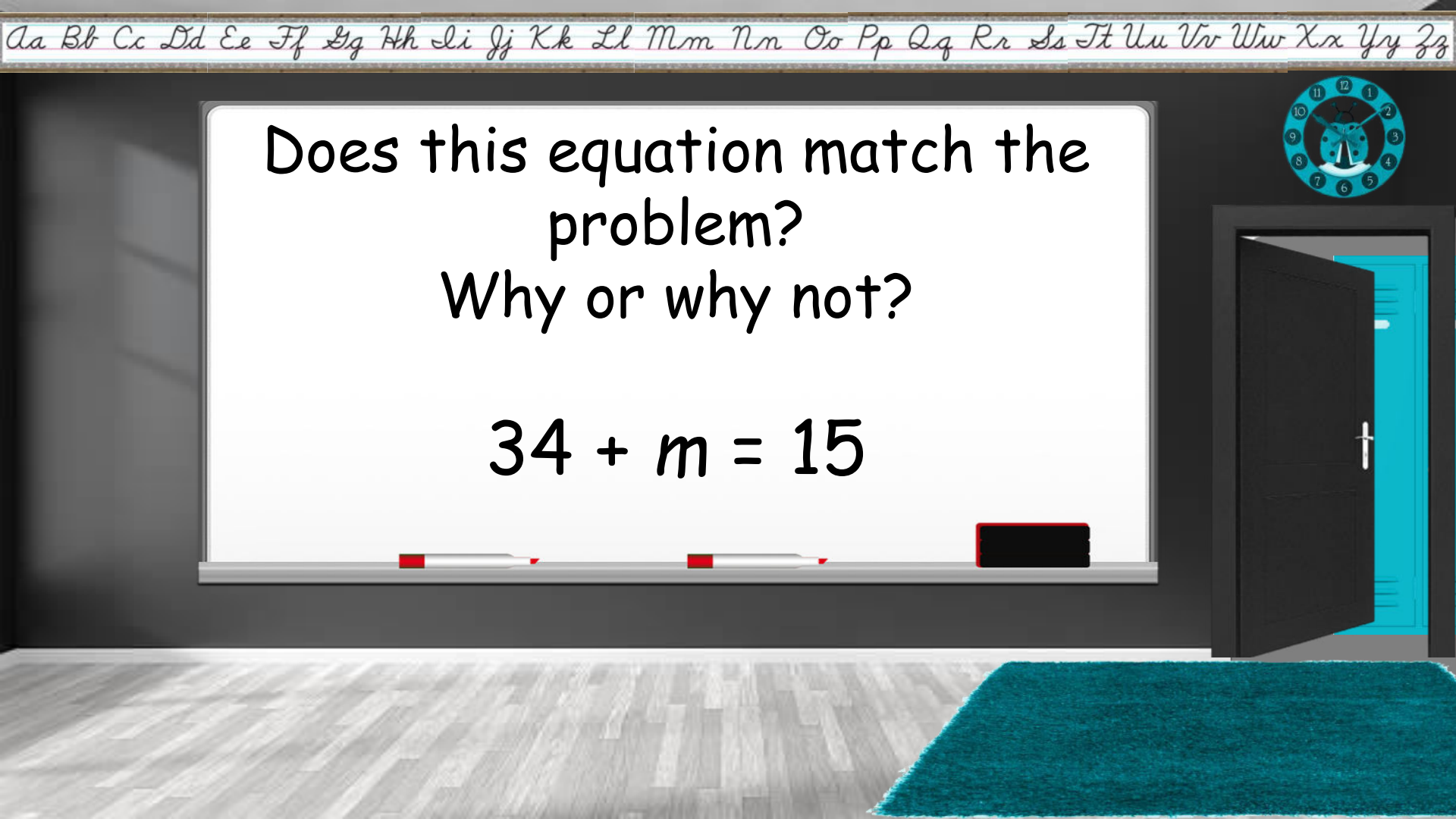
We just found out that if you line up a 19-centimeter pencil end to end with a 15-centimeter eraser, the total length is 34 centimeters. Here are some equations we might use to represent the situation.

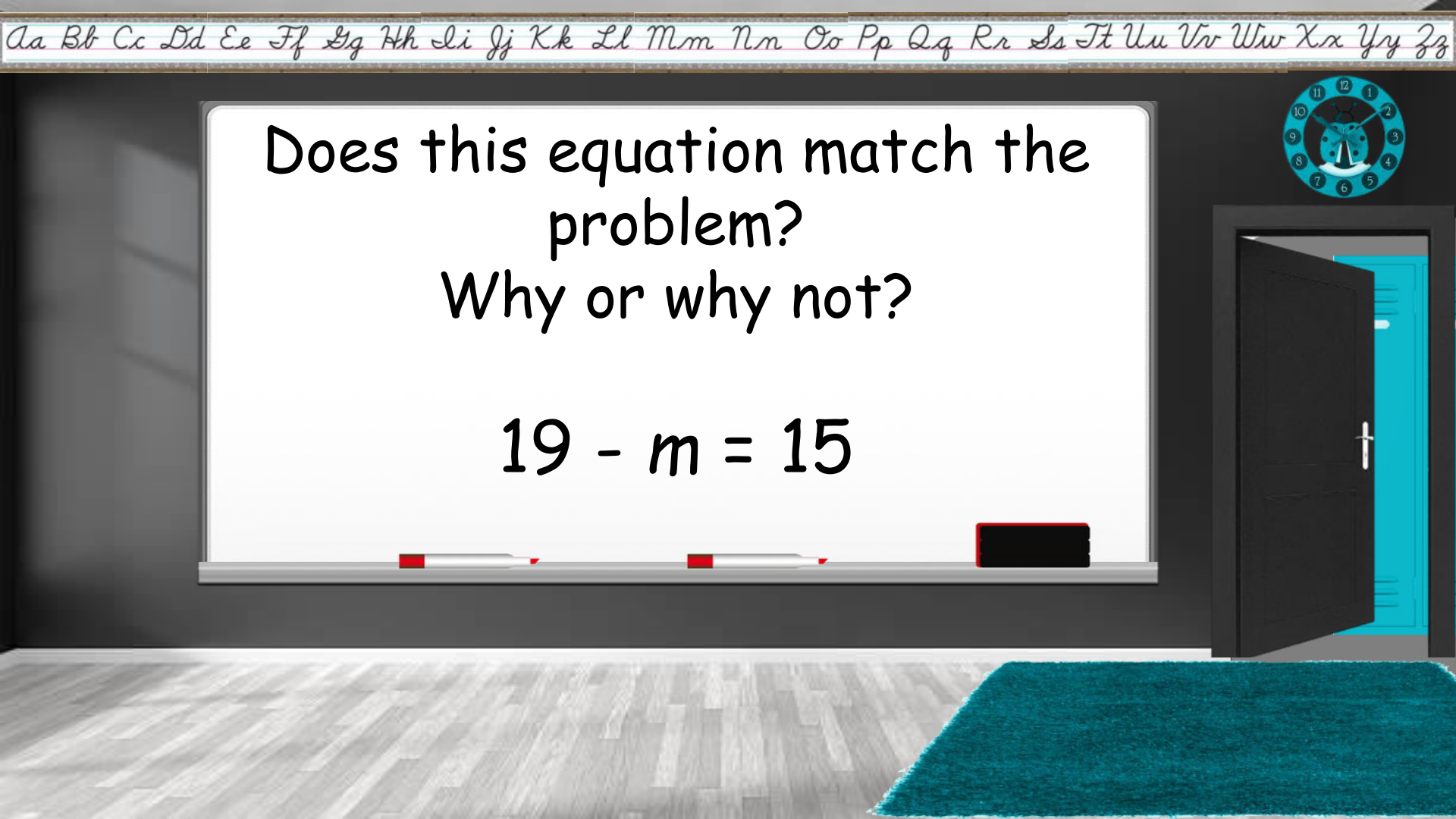
$$19 + 15 = m$$

$$19 + m = 34$$

$$m + 15 = 34$$

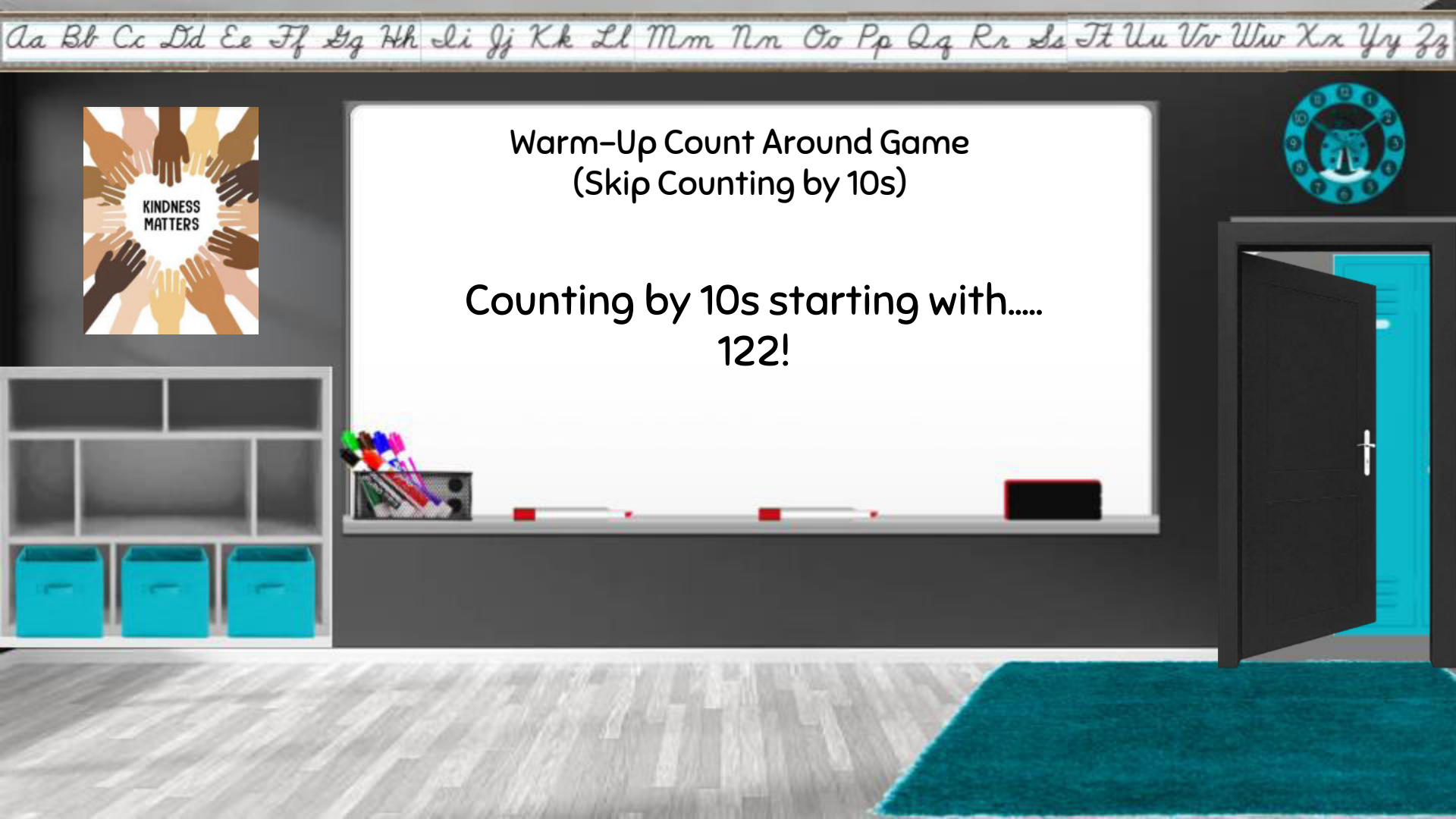

Does this equation match the problem?
Why or why not?
19 - 15 = m


Does this equation match the problem?
Why or why not?
34 + m = 15


Does this equation match the problem?
Why or why not?
19 - m = 15

Adding Lengths Forum
Learning Targets

- Solve addition story problems with sums to 100 involving lengths given in the same units
- Write equations with a letter standing for the unknown quantity to represent one-step story problems
- Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 1,000.
- Construct a viable arguments and critique the reasoning of others
- Model with mathematics


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Warm-Up Count Around Game
(Skip Counting by 10s)
Counting by 10s starting with.....
122!

Introducing... Math Forums!

- A **math forum** is an active learning time when class members will share their thinking and the class will discuss the problems and solution strategies.

- A few people will share today, and others will get to share in future forums.

Math Forums

Solve this problem and be ready to share with the class.

15 + 28

Problem Strings
Learning Targets

- I can model my thinking with words, numbers, or pictures.
- I can use strategies to solve 2-digit addition problems.
- I can identify patterns in math facts.

Introducing... Problem Strings!

Today we will complete our first **problem string** in your math journals.

A problem string is a series of problems that students solve and discuss one at a time.

Strings often start out with an easier problem, and then the problems get more challenging as the string continues.

Open to a blank page in your notebook.

Adding Tens Problem String

1. 28 + 10

Open to a blank page in your notebook.

Adding Tens Problem String

1. 28 + 10
2. 28 + 13

Open to a blank page in your notebook.

Adding Tens Problem String

1. 28 + 10
2. 28 + 13
3. 28 + 23

Open to a blank page in your notebook.

Adding Tens Problem String

1. 28 + 10
2. 28 + 13
3. 28 + 23

1. 36 + 10

Open to a blank page in your notebook.

Adding Tens Problem String

1. 28 + 10
2. 28 + 13
3. 28 + 23

1. 36 + 10
2. 36 + 16

Open to a blank page in your notebook.

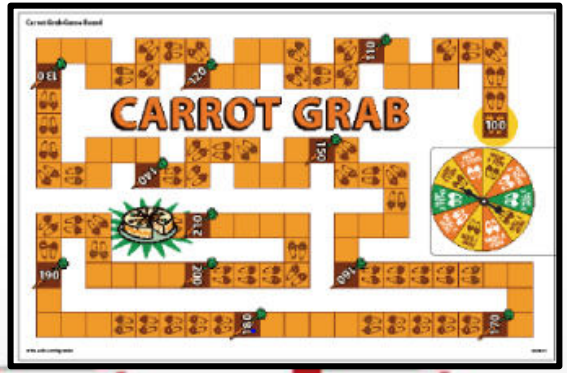
Adding Tens Problem String

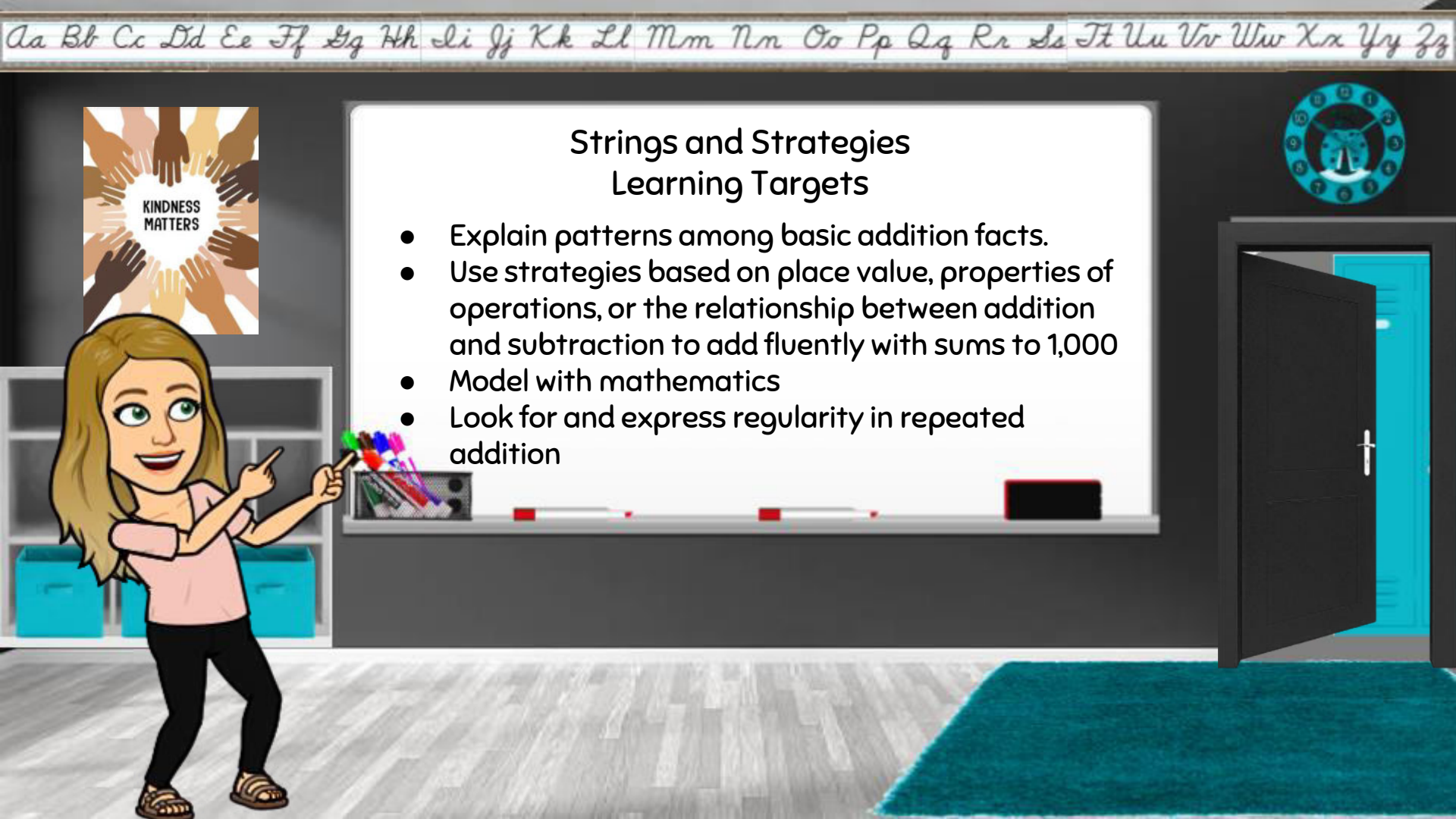
1. 28 + 10
2. 28 + 13
3. 28 + 23

1. 36 + 10
2. 36 + 16
3. 36 + 36

Carrot Grab 1E Workplace

Game Board




Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Strings and Strategies
Learning Targets
Explain patterns among basic addition facts.
Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 1,000
Model with mathematics
Look for and express regularity in repeated addition

Introducing... Friendly Numbers!

In Carrot Grab, players were able to collect carrots every time they landed on what we call a friendly number.

Look at the Carrot Grab Game board and think about what makes the number friendly.

Introducing... Friendly Numbers!

In the game, a friendly number is a multiple of 10, often referred to as a round number.

More generally, a friendly number might be any number that is easy to compute with, for examples multiples of 5.

Today we will work specifically with friendly numbers that are multiples of 10.

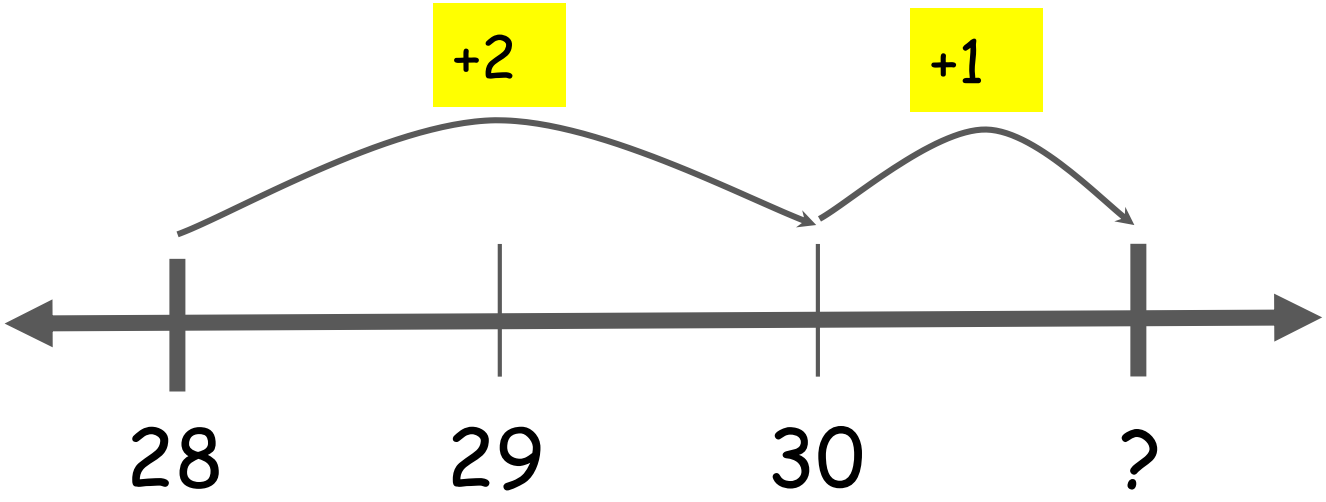
Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

Number lines are a great way to show your thinking!



Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3
2. 28 + 7

Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3
2. 28 + 7
3. 28 + 13

Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3
2. 28 + 7
3. 28 + 13

1. 39 + 4

Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3
2. 28 + 7
3. 28 + 13

1. 39 + 4
2. 39 + 14

Open to a blank page in your notebook.

Get to a Friendly Number

1. 28 + 3
2. 28 + 7
3. 28 + 13

1. 39 + 4
2. 39 + 14
3. 39 + 23

Module 4

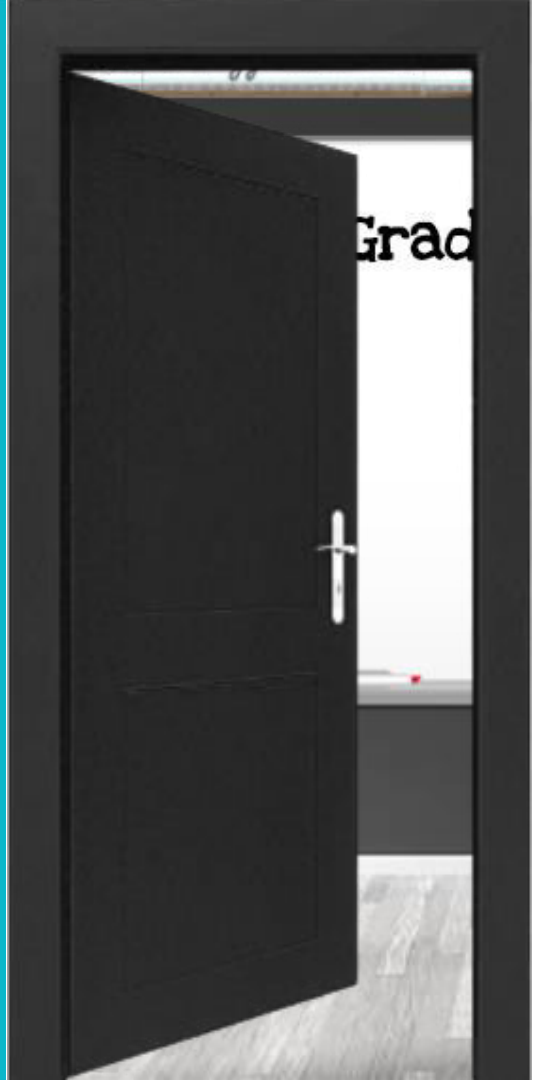
Session 1
Rabbit Tracks 1F

Session 2
Two Digit Addition Story Problems

Session 3
Two Digit Addition Story Problems

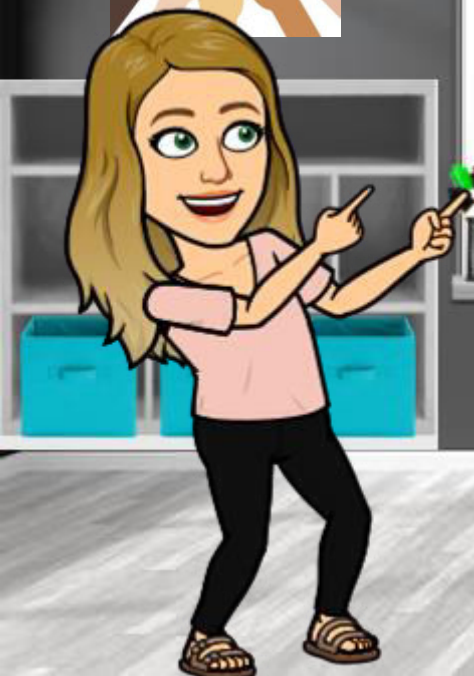
Session 4
Strategies for Subtracting two-digit numbers

Session 5
Multi-step Story Problems



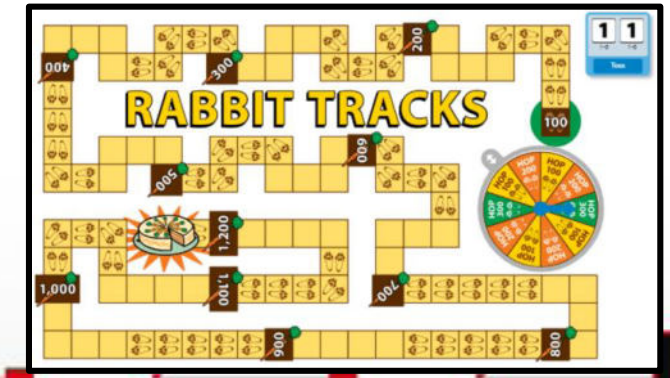
Rabbit Tracks 1F
Learning Targets

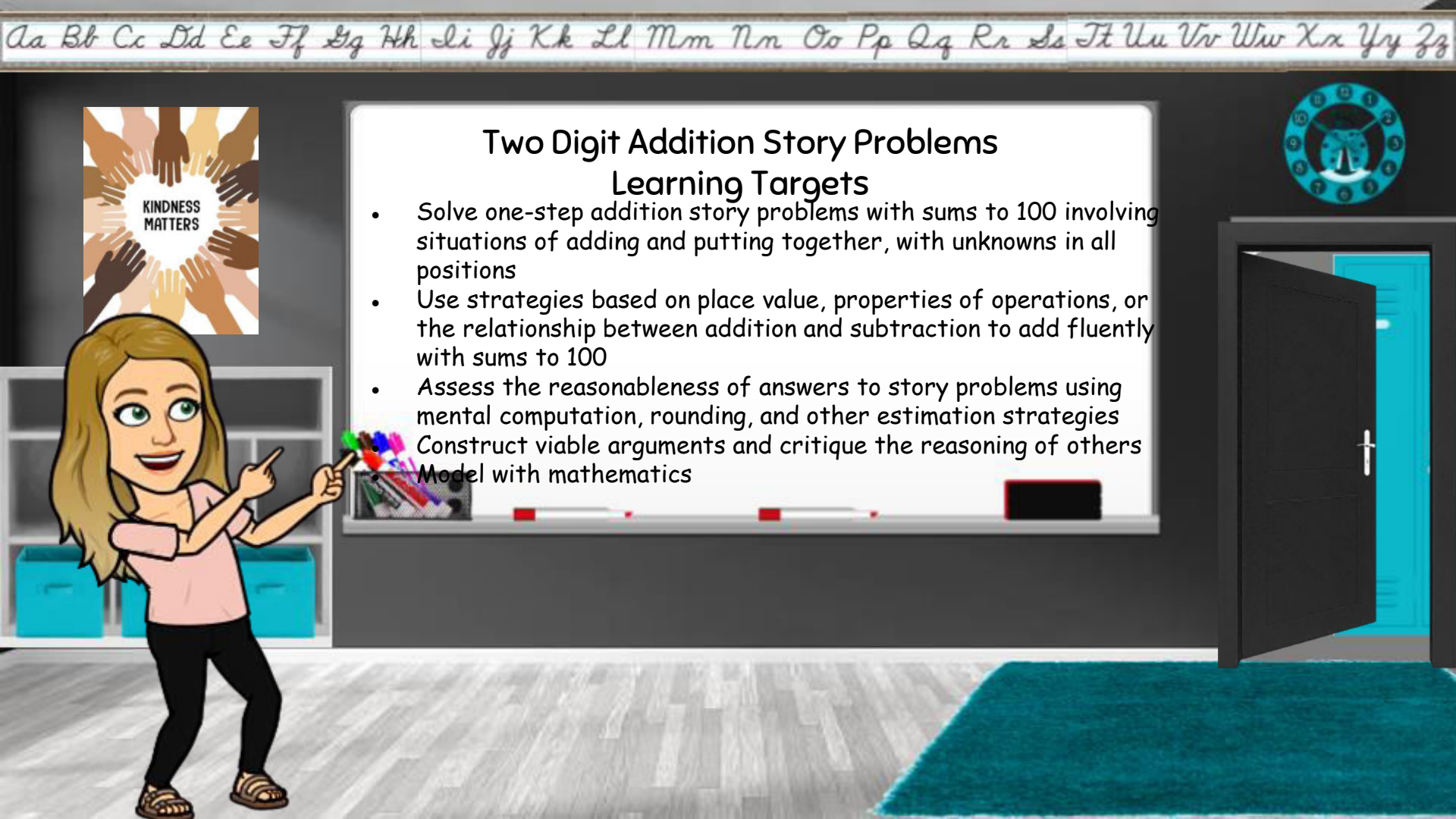
- Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 1,000
- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively



Rabbit Tracks 1F Workplace

Game Board

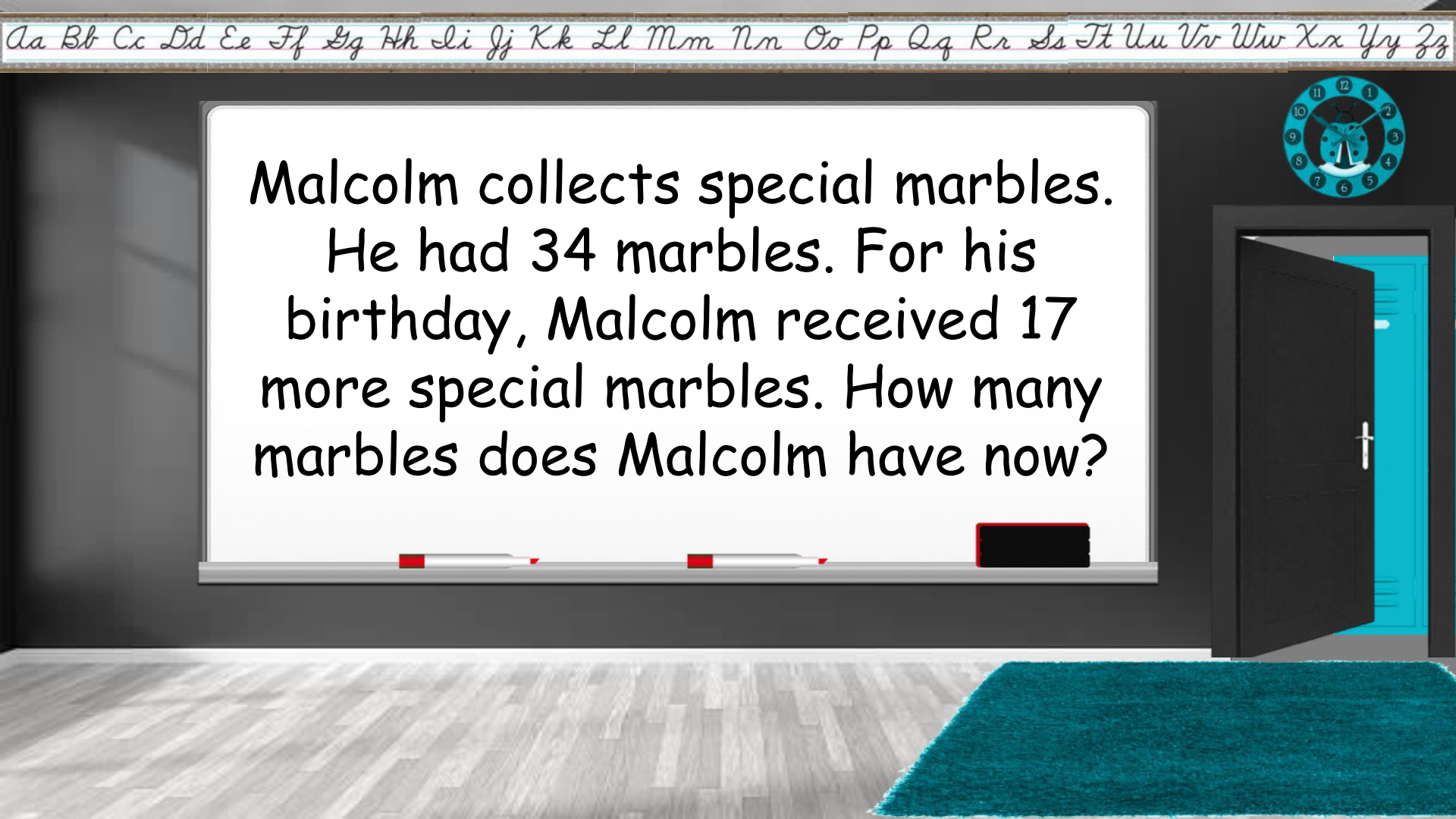


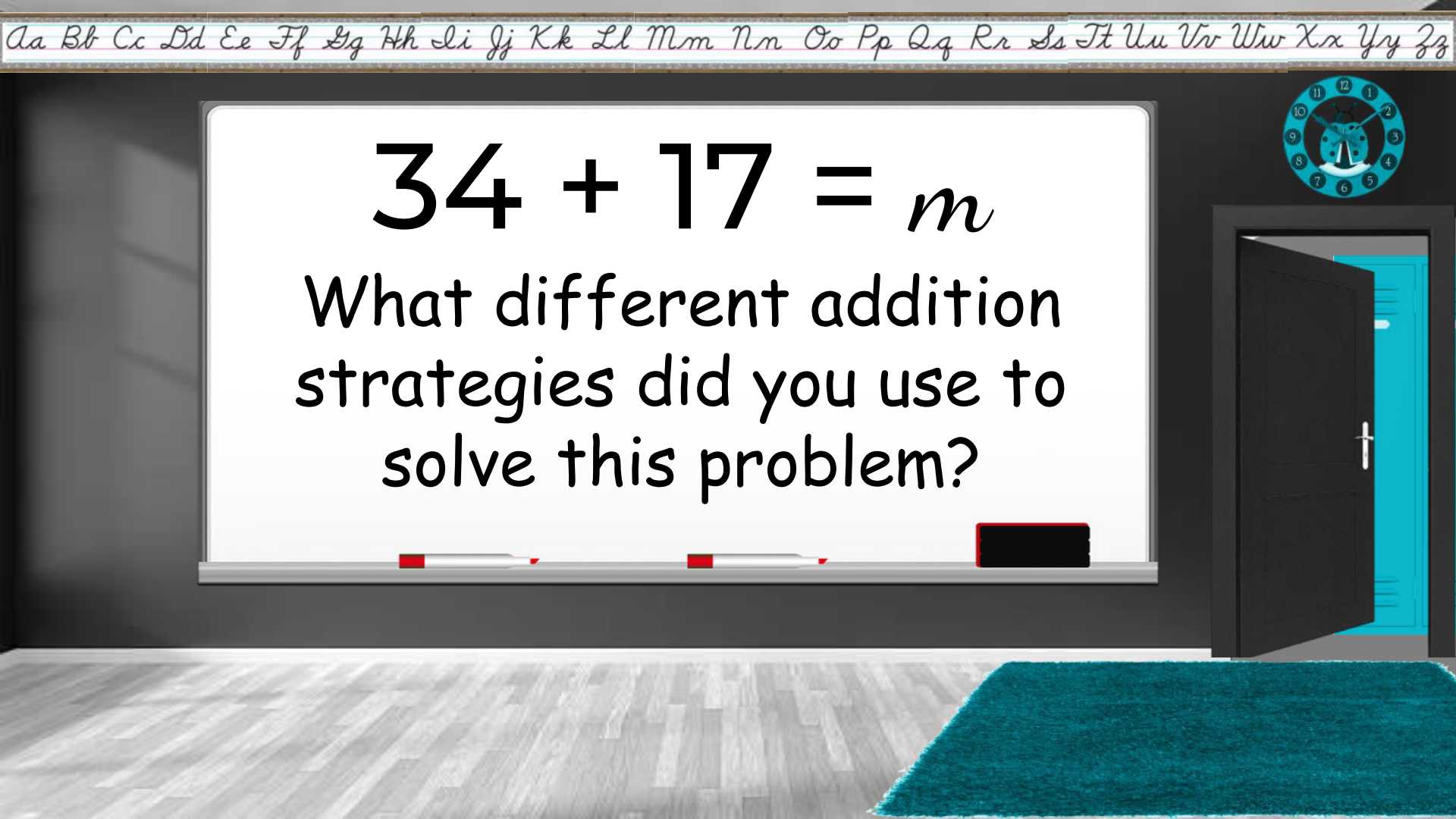

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Two Digit Addition Story Problems
Learning Targets
• Solve one-step addition story problems with sums to 100 involving situations of adding and putting together, with unknowns in all positions
• Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 100
• Assess the reasonableness of answers to story problems using mental computation, rounding, and other estimation strategies
• Construct viable arguments and critique the reasoning of others
• Model with mathematics

Open to a blank page in your notebook.

Date:

Story Problems


Malcolm collects special marbles. He had 34 marbles. For his birthday, Malcolm received 17 more special marbles. How many marbles does Malcolm have now?


34 + 17 = m
What different addition strategies did you use to solve this problem?

Jonah loved to read. Yesterday he read for 36 pages and today he read 28. How many pages did Jonah read in all?

Solve independently using two *different* strategies.

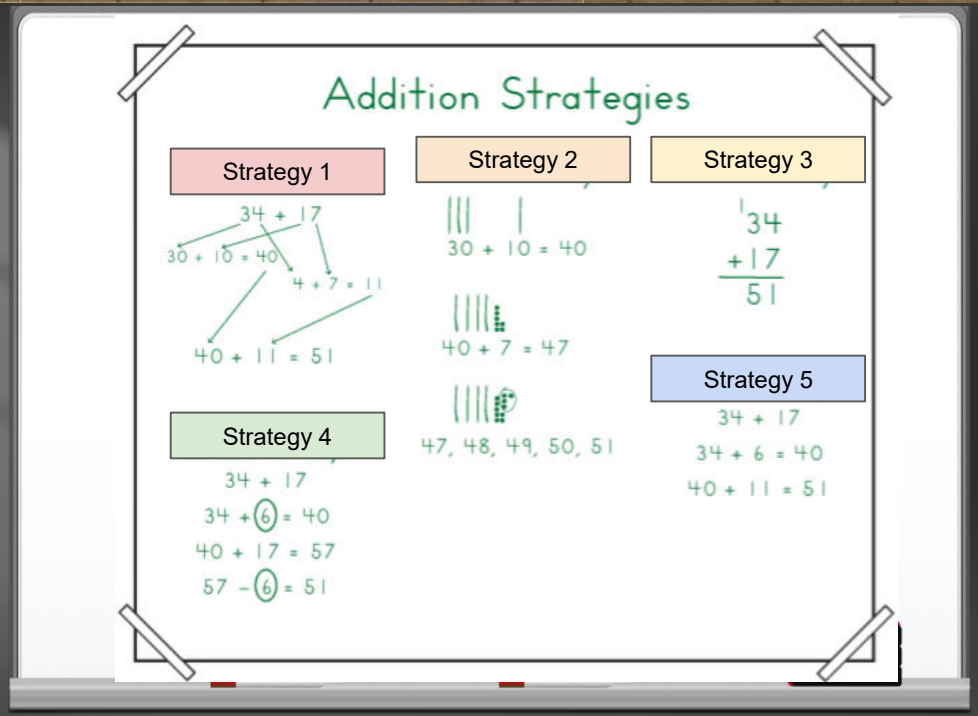
Two Digit Addition Story Problems Part 2

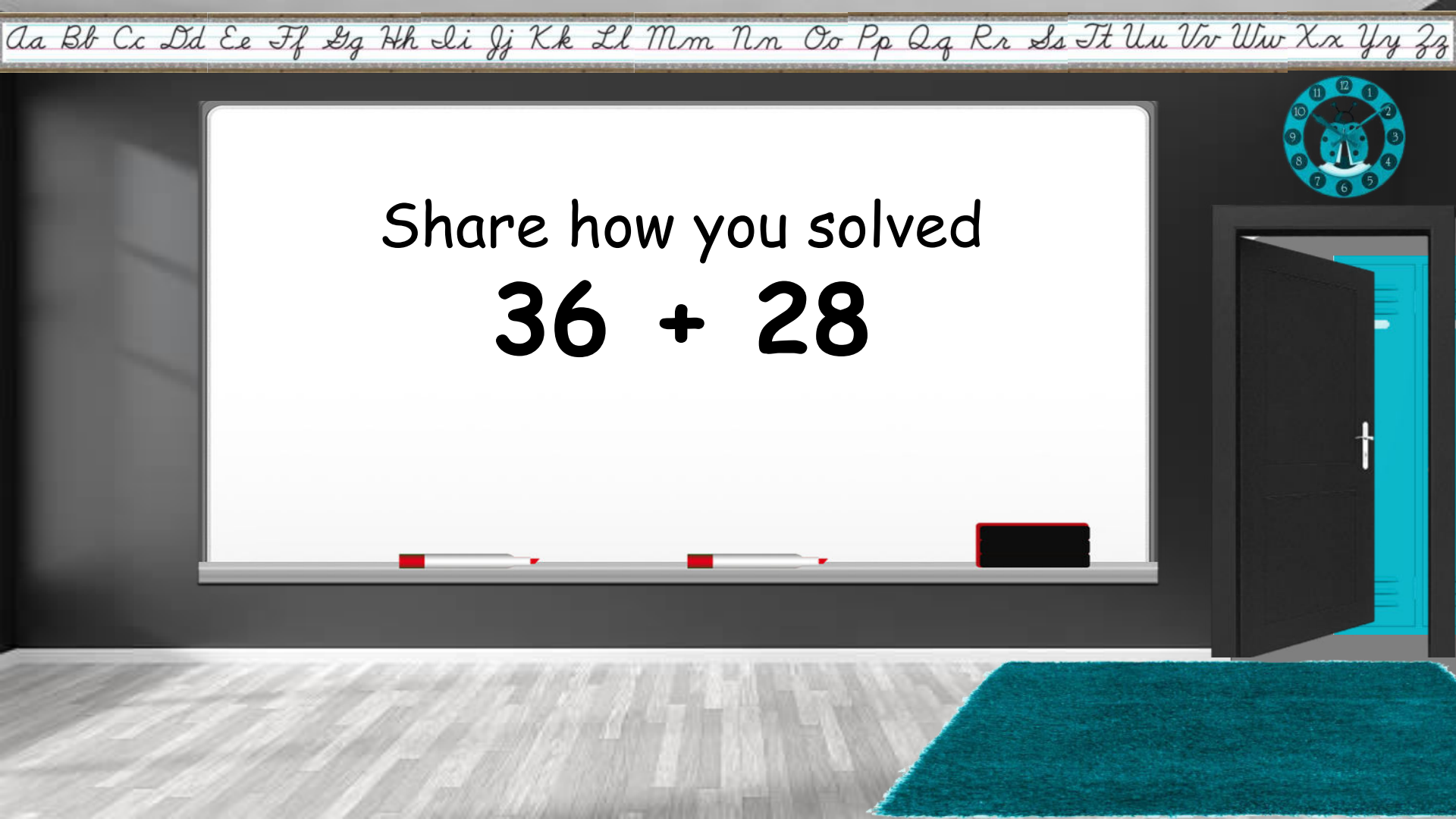
Learning Targets

- Solve one-step addition story problems with sums to 100 involving situations of adding and putting together, with unknowns in all positions
- Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 100
- Assess the reasonableness of answers to story problems using mental computation, rounding, and other estimation strategies
- Construct viable arguments and critique the reasoning of others
- Model with mathematics

Math Forum: Class Expectations

- Students listen quietly and actively while others share their thinking
- Students think carefully about what their classmates share, so that they can be prepared to ask questions and discuss their classmates' strategies in pairs and as a whole group


Addition Strategies
Strategy 1
34 + 17
30 + 10 = 40
4 + 7 = 11
40 + 11 = 51
Strategy 2
30 + 10 = 40
40 + 7 = 47
47, 48, 49, 50, 51
Strategy 3
34
+17
51
Strategy 4
34 + 17
34 + 6 = 40
40 + 17 = 57
57 − 6 = 51
Strategy 5
34 + 17
34 + 6 = 40
40 + 11 = 51


Share how you solved
36 + 28

Target 100 1G Workplace

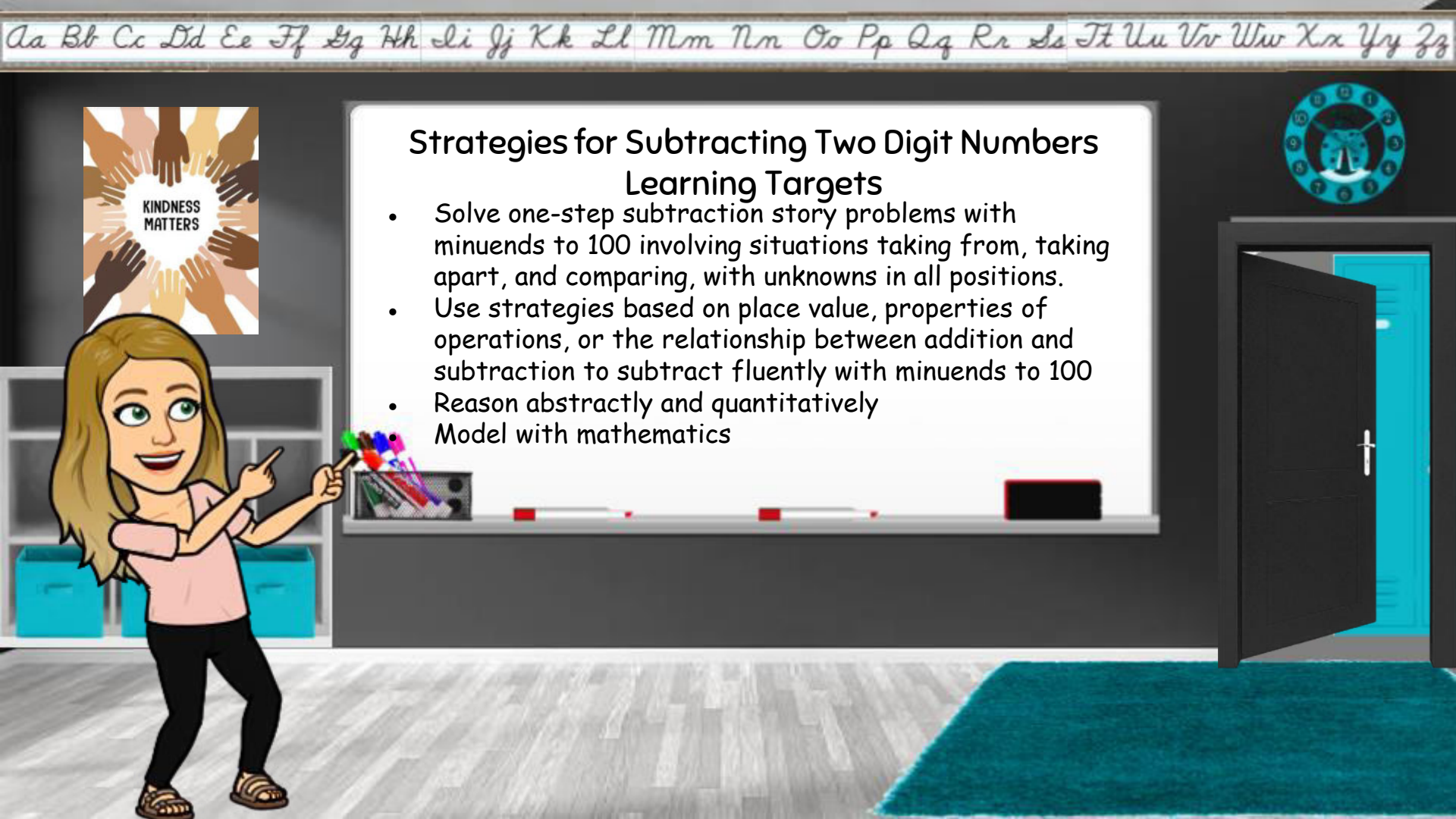
Game Board

Work Place 1G Target One Hundred

For each round of the game, players write an addition equation, their score, and their partner's score.

	First Game	Player 1	Player 2
1	____ + ____ = ____		
2	____ + ____ = ____		
3	____ + ____ = ____		
4	____ + ____ = ____		
5	____ + ____ = ____		
	Player 1 Total: ____	Player 2 Total: ____	

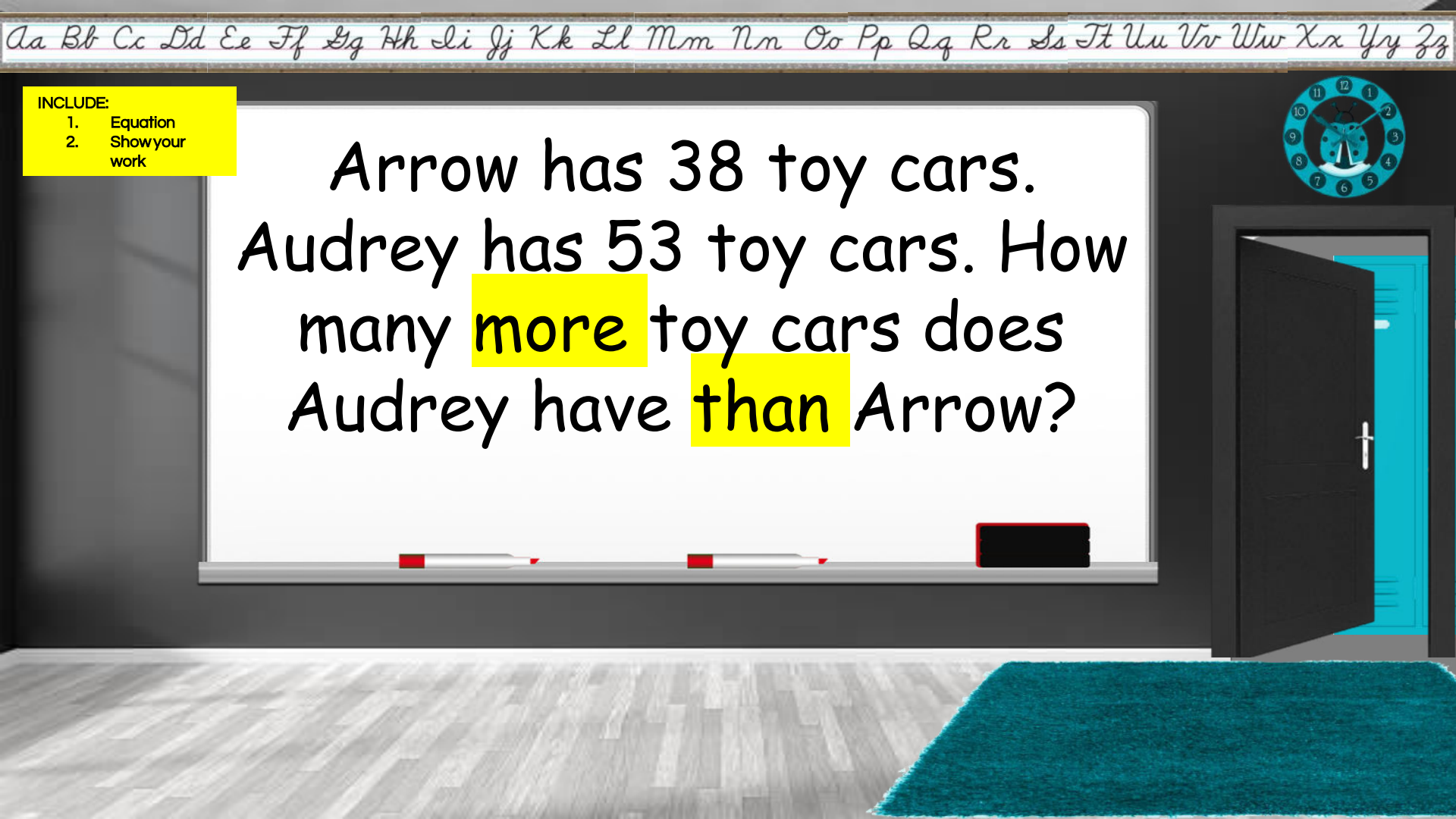
Bridges in Mathematics Grade 1 | Unit 1 Module 4 Session 3

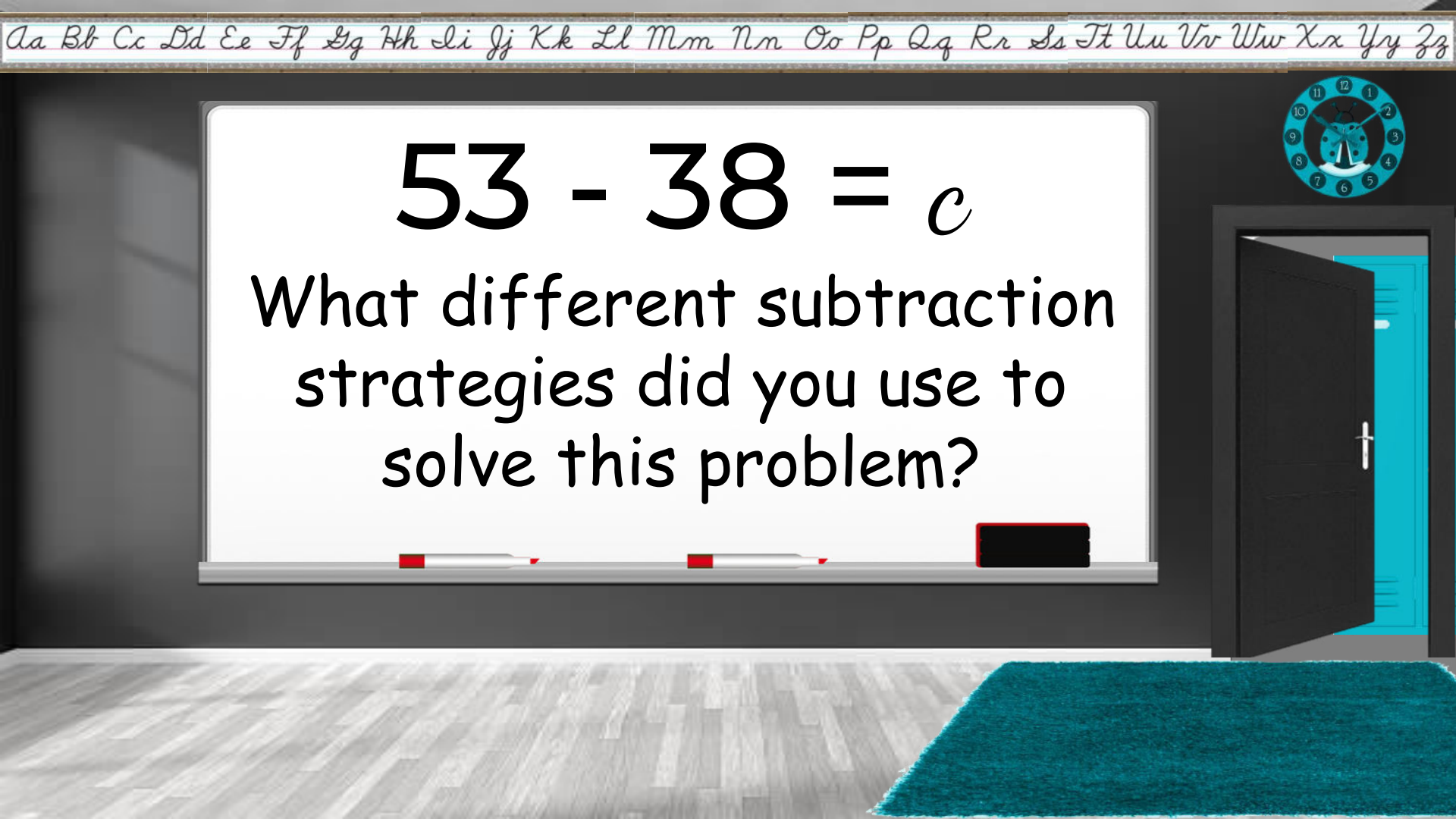

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
KINDNESS MATTERS
Strategies for Subtracting Two Digit Numbers
Learning Targets
• Solve one-step subtraction story problems with minuends to 100 involving situations taking from, taking apart, and comparing, with unknowns in all positions.
• Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to subtract fluently with minuends to 100
• Reason abstractly and quantitatively
Model with mathematics

Open to a blank page in your notebook.

Date:

Subtraction Story Problems


INCLUDE:
1. Equation
2. Show your work
Arrow has 38 toy cars. Audrey has 53 toy cars. How many more toy cars does Audrey have than Arrow?


53 - 38 = c
What different subtraction strategies did you use to solve this problem?

1. Start with the smaller number.
2. Add up to friendly numbers to meet the larger number at the end.
3. Add up all your jumps to find the difference.

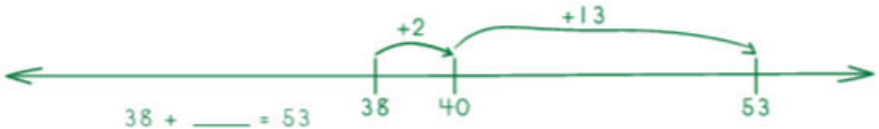
Differencing strategy

Add up from 38 to 53.

Add 2 to get to 40.

Then add 13 to get to 53.

53 – 38 = 15



38 + ____ = 53

38 + 2 = 40

40 + 13 = 53

So 38 + 15 = 53 and that means 53 – 38 = 15

The difference between 53 and 38 is 15.

Differencing strategy

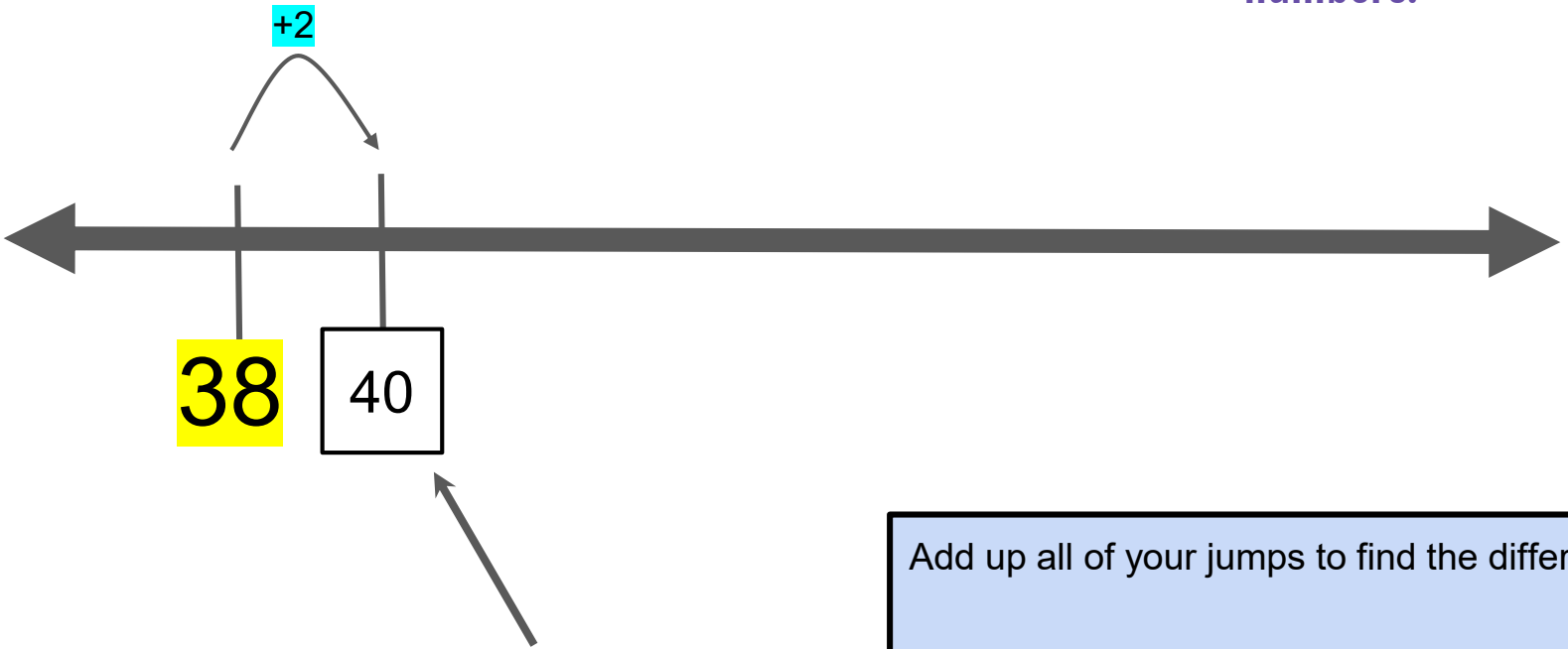
53-38=m

1. Start with the smaller number.
2. Add up to friendly numbers.

Differencing strategy

53-38=m

1. Start with the smaller number.
2. Add up to friendly numbers.

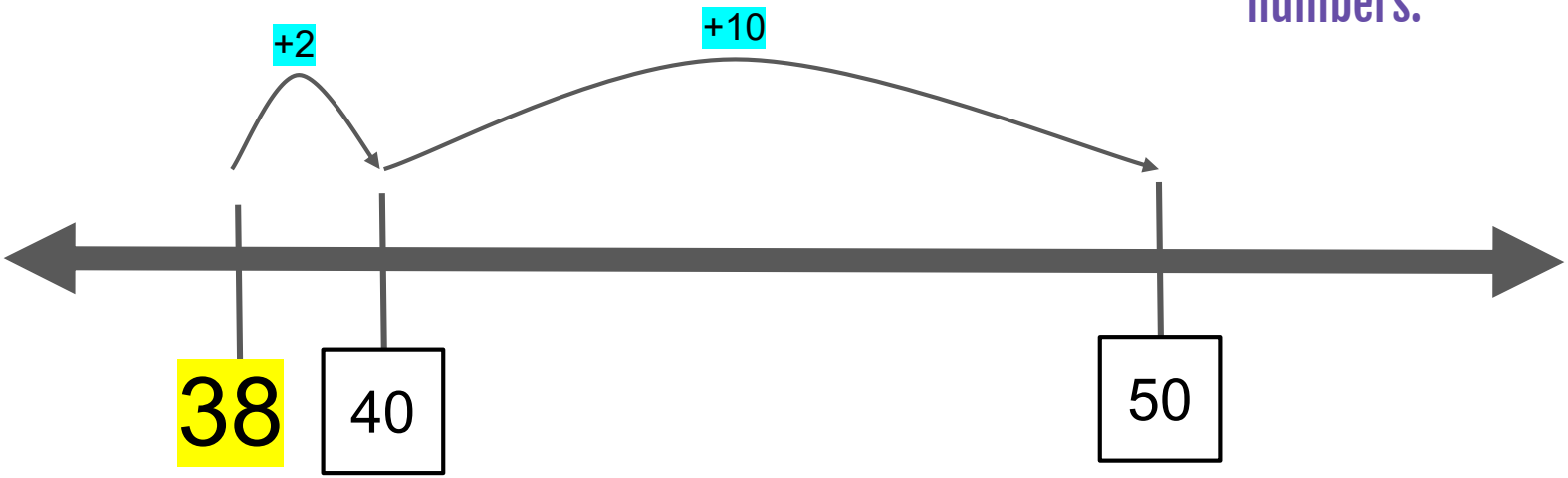


Add up all of your jumps to find the difference

Differencing strategy

53-38=m

1. Start with the smaller number.
2. Add up to friendly numbers.



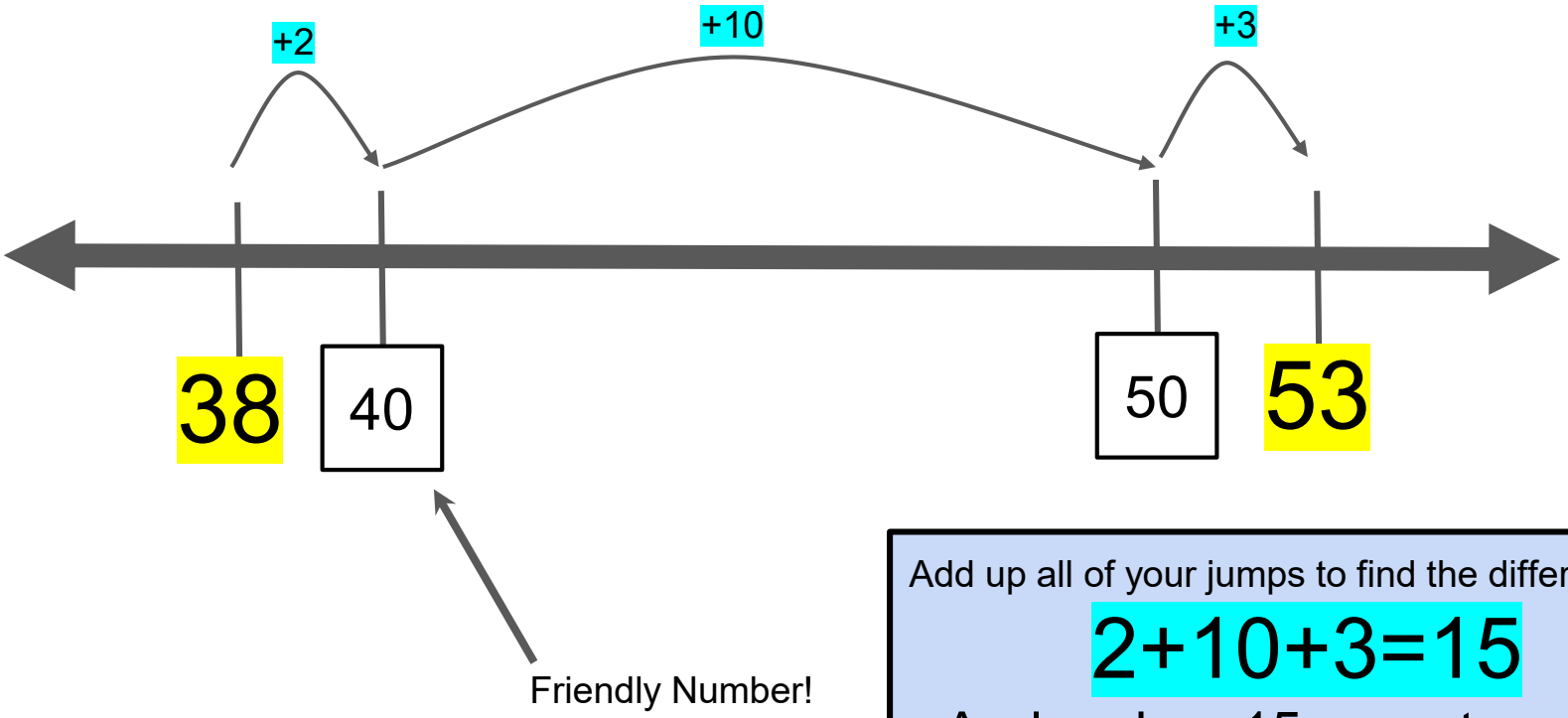
Add up all of your jumps to find the difference

2+10+

Differencing strategy

53-38=m

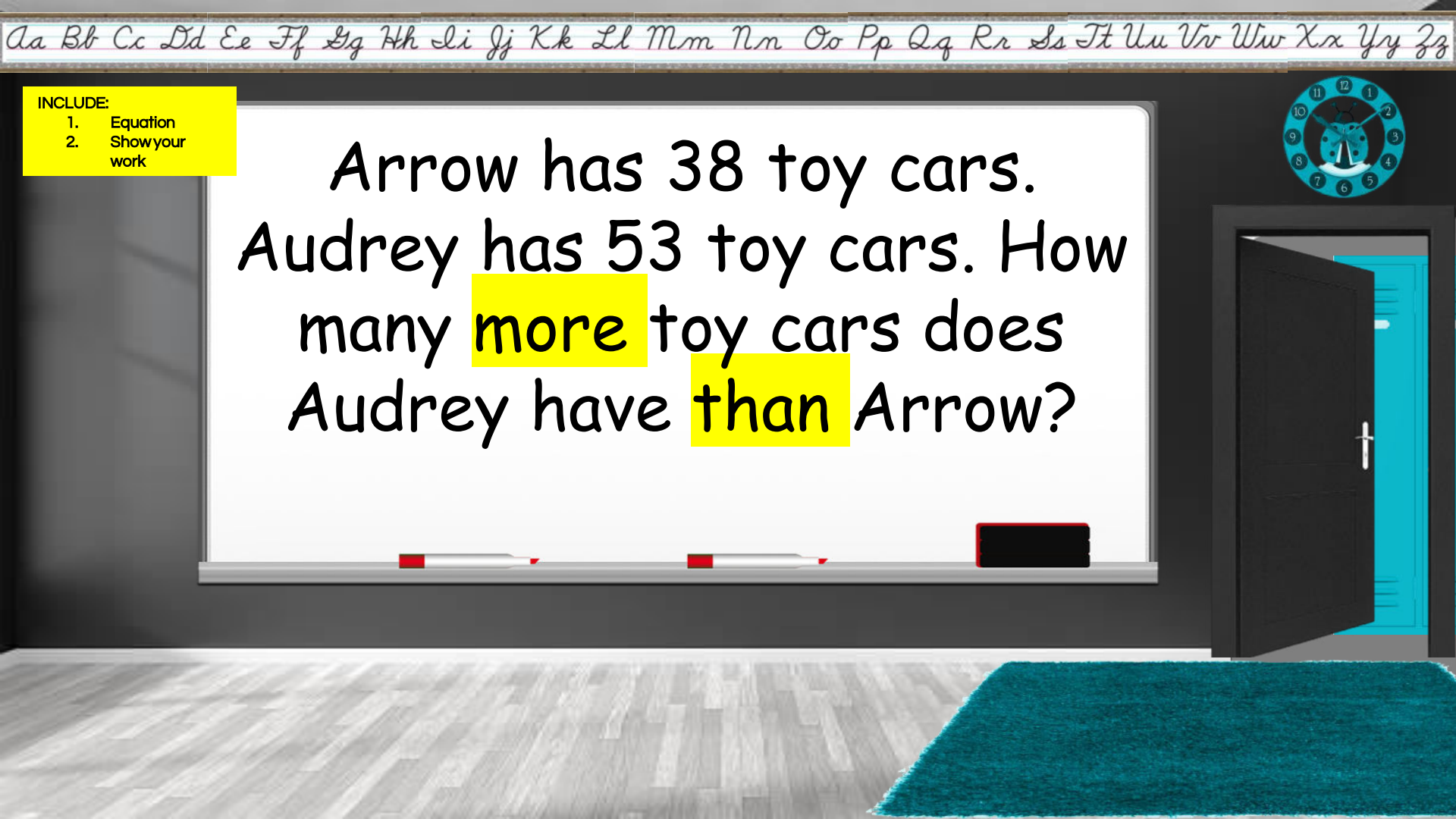
1. Start with the smaller number.
2. Add up to friendly numbers.
3. Stop at 52. Add up the jumps!



Add up all of your jumps to find the difference

2+10+3=15

Audrey has 15 more toy cars.


INCLUDE:
1. Equation
2. Show your work
Arrow has 38 toy cars. Audrey has 53 toy cars. How many more toy cars does Audrey have than Arrow?

Take 38 away from 53
a little bit at a time.

First take away 30 to get to 23.

Then take away 3 to get to 20.

Then take away 5 to get to 15.

53 – 38 = 15

53 – 38 = 53 – 30 – 3 – 5
= 23 – 3 – 5
= 20 – 5
= 15
53 – 38 = 15

Removal strategy

1. Start with the BIG number.
2. Count down using friendly numbers.
3. Count down the rest after you reached the last friendly number you could get to!

Removal strategy

53 – 38

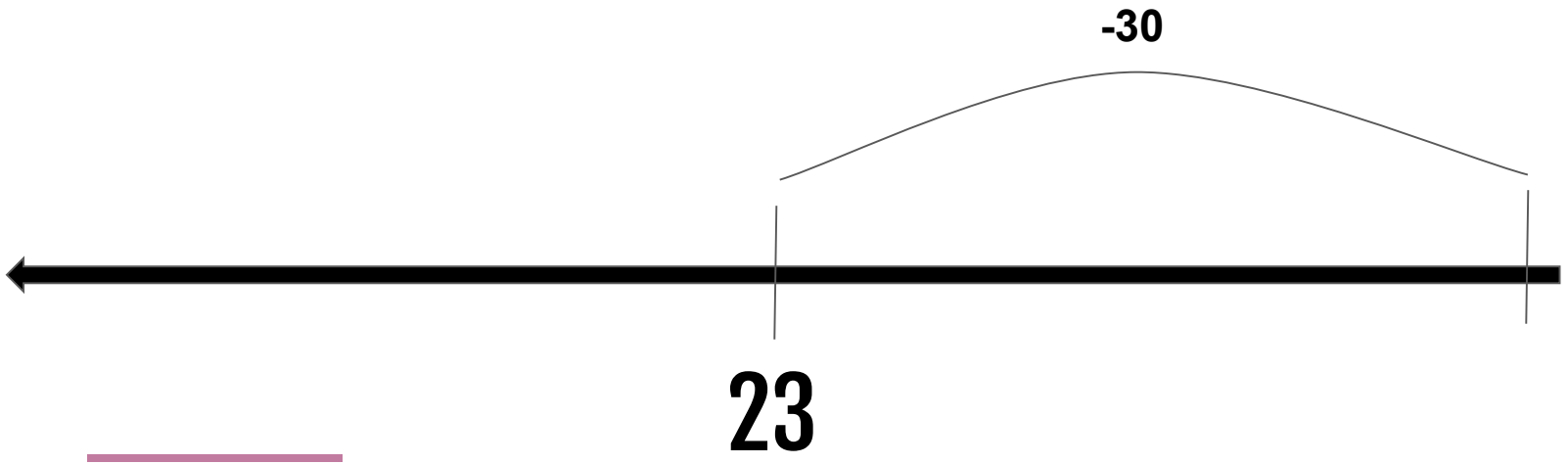
1. Start with the BIG number.

53

Removal strategy

53 – 38

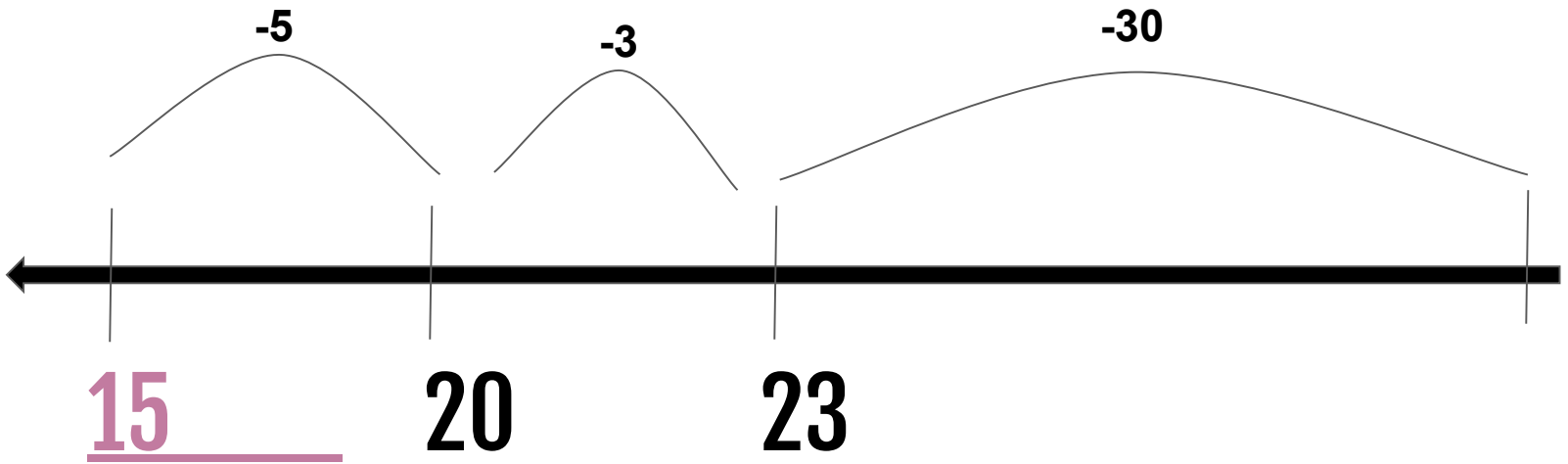
1. Start with the BIG number.
2. Count down using friendly numbers.



Removal strategy

1. Start with the BIG number.
2. Count down using friendly numbers.

53 – 38



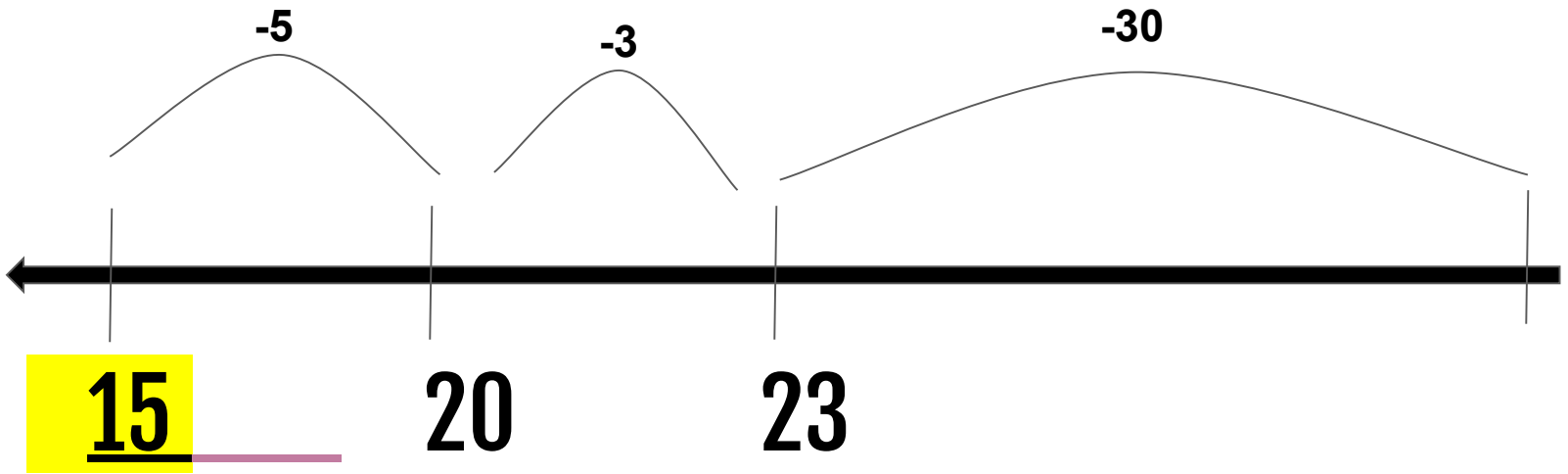
Removal strategy

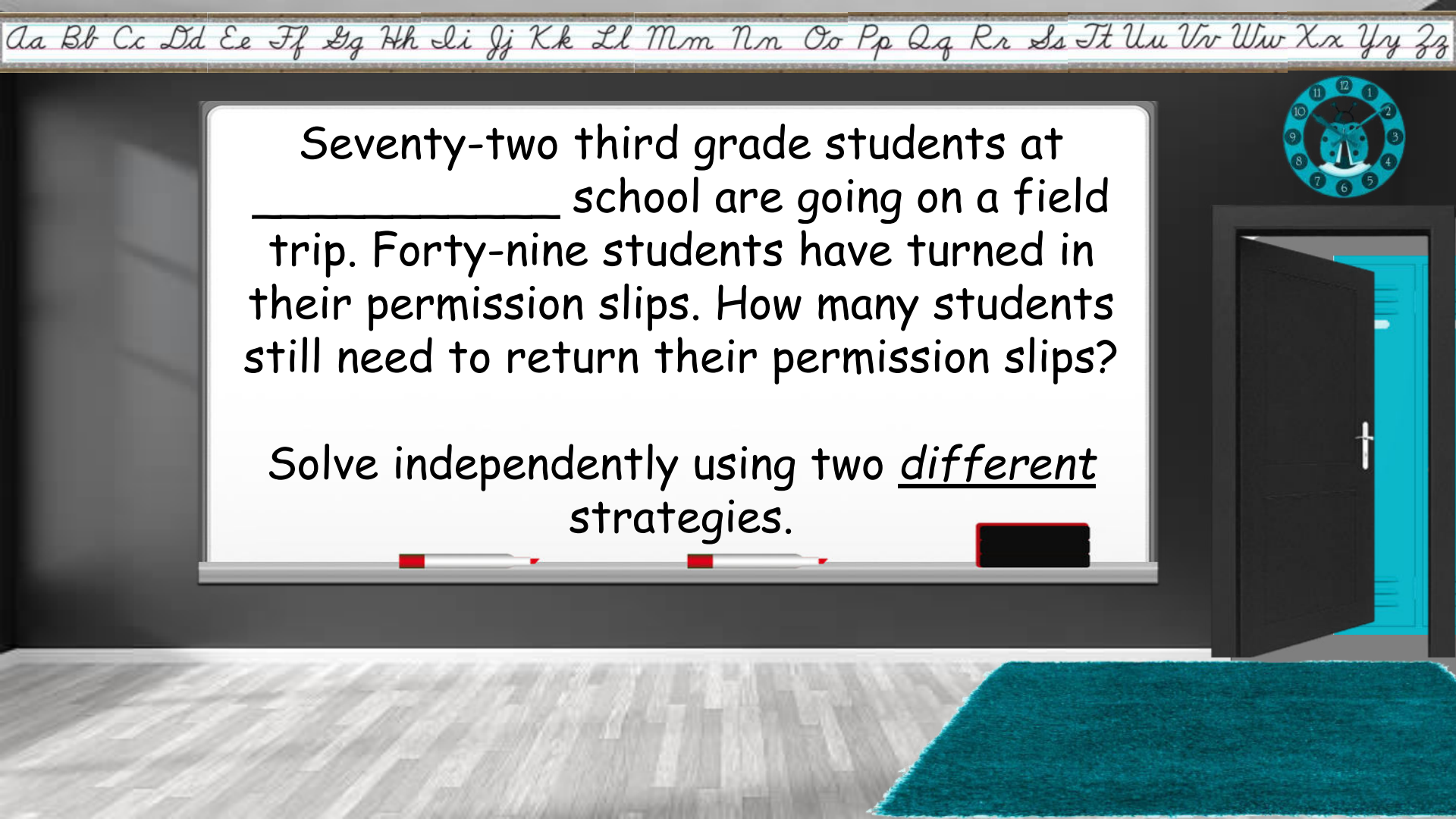
1. Start with the BIG number.
2. Count down using friendly numbers.

53 – 38

Check: 30+3+5=38 ✓

Sooo... 53 – 38 = 15




Seventy-two third grade students at _____ school are going on a field trip. Forty-nine students have turned in their permission slips. How many students still need to return their permission slips?
Solve independently using two *different* strategies.

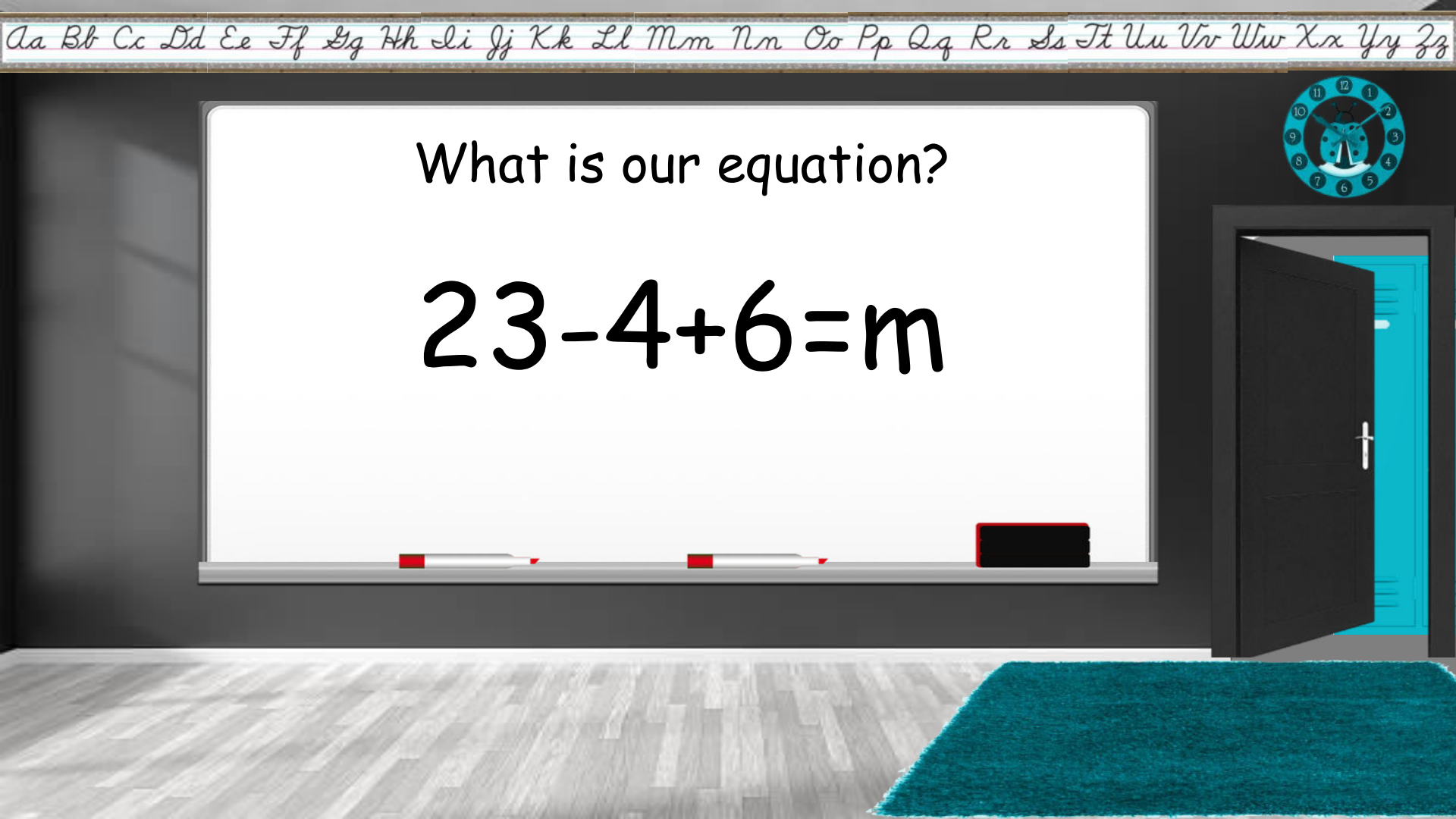
Multi-Step Subtraction Problems
Learning Targets

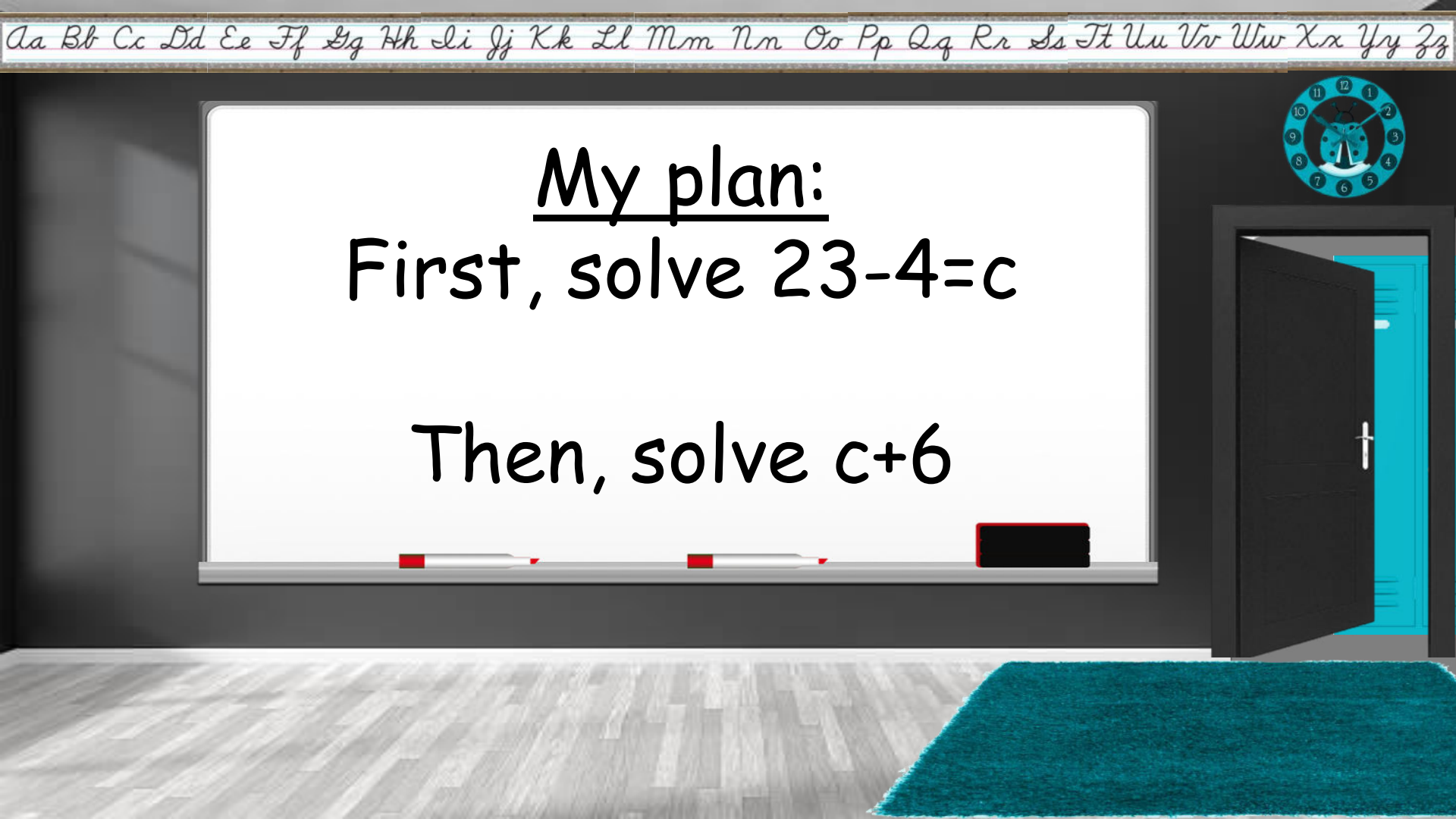
- Use strategies based on place value, properties of operations, or the relationship between addition and subtraction to add fluently with sums to 1,000 and subtract fluently with minuends to 1,000.
- Solve two-step story problems using addition and subtraction
- Reason abstractly and quantitatively
- Model with mathematics

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

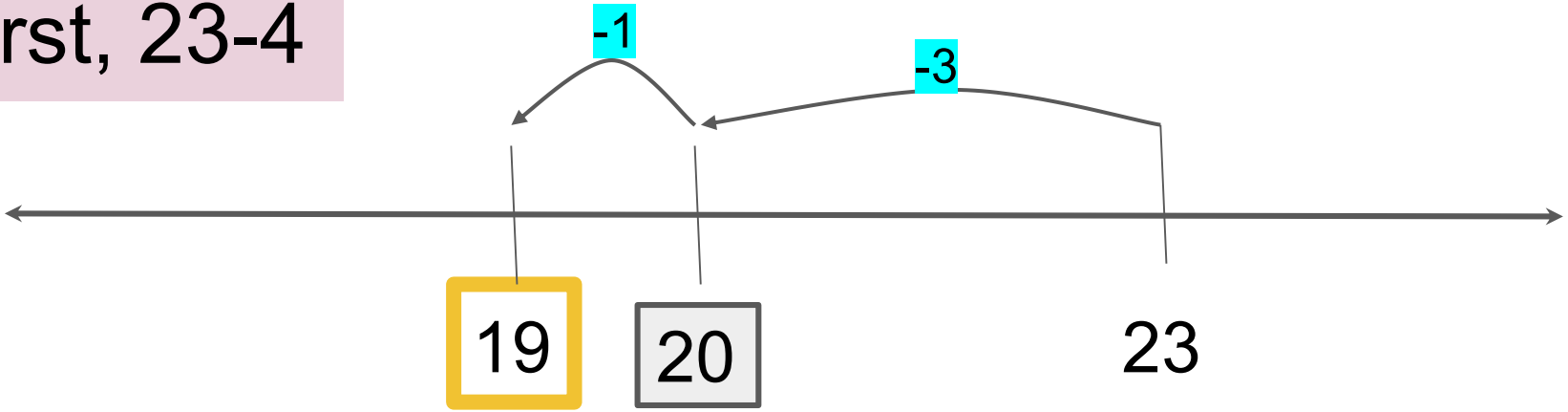
Jojo had a collection of 23 LOL dolls. She took the dolls to a friend's house and lost 4 of them. Her dad bought a package of 6 more dolls for her. How many dolls does Jojo have now?

Hmm..what do I need to do first?

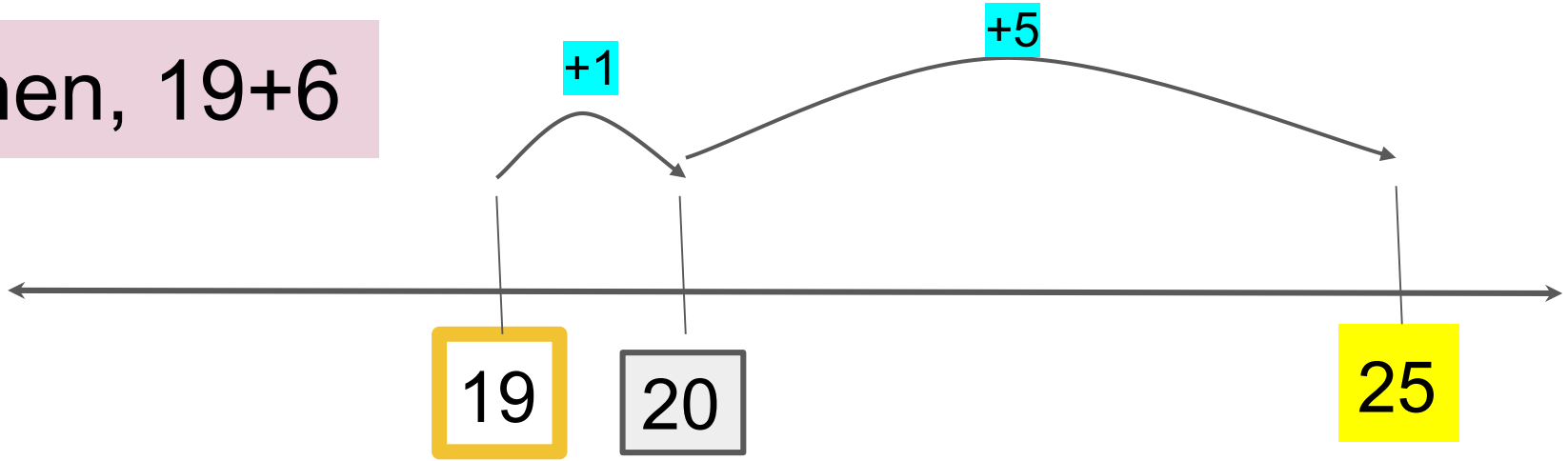

What is our equation?
23-4+6=m


My plan:
First, solve 23-4=c
Then, solve c+6

First, 23-4

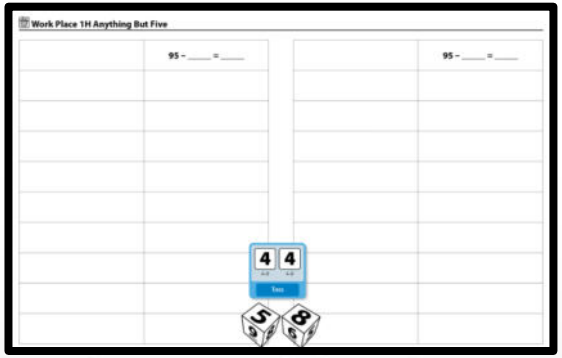


Then, 19+6

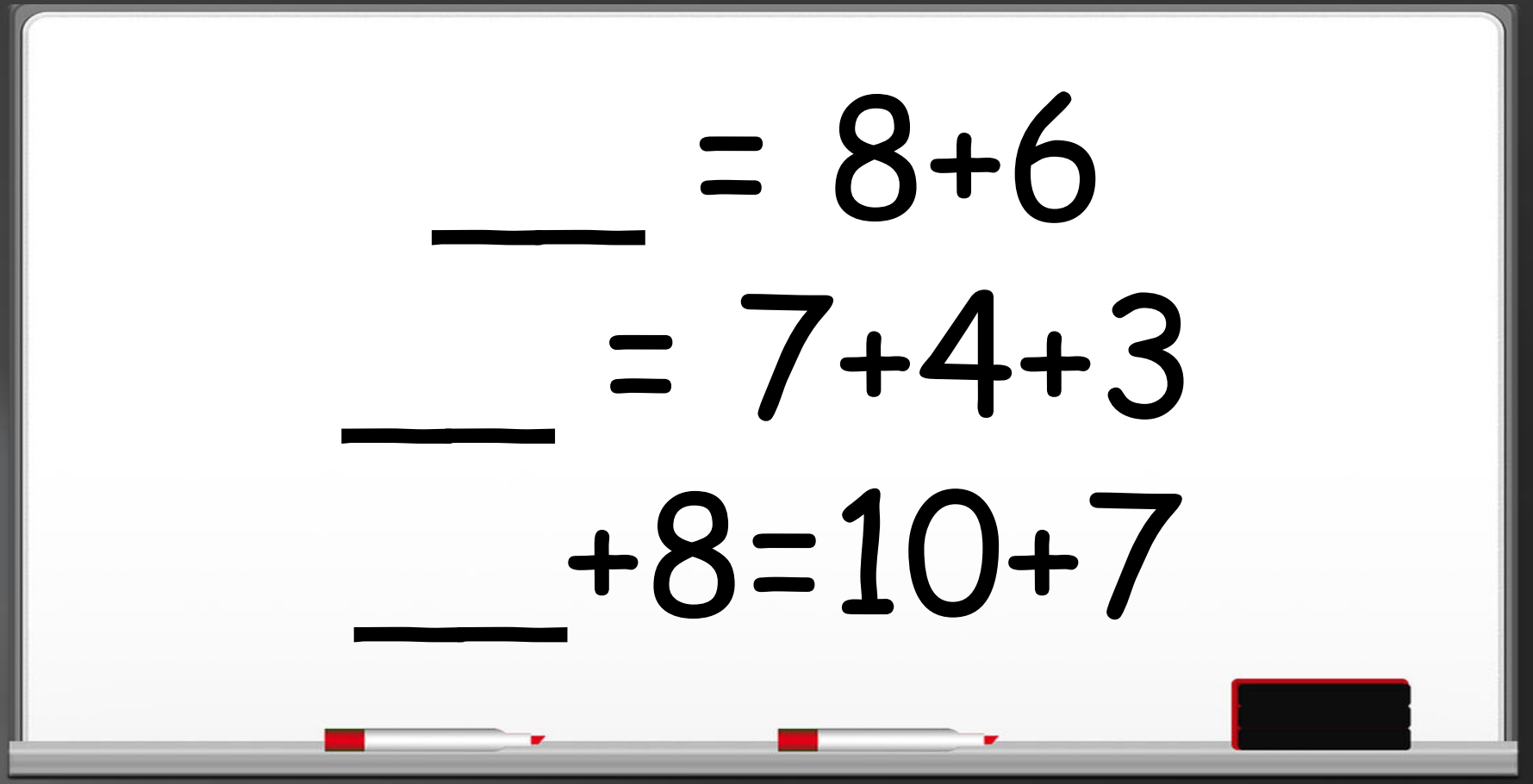


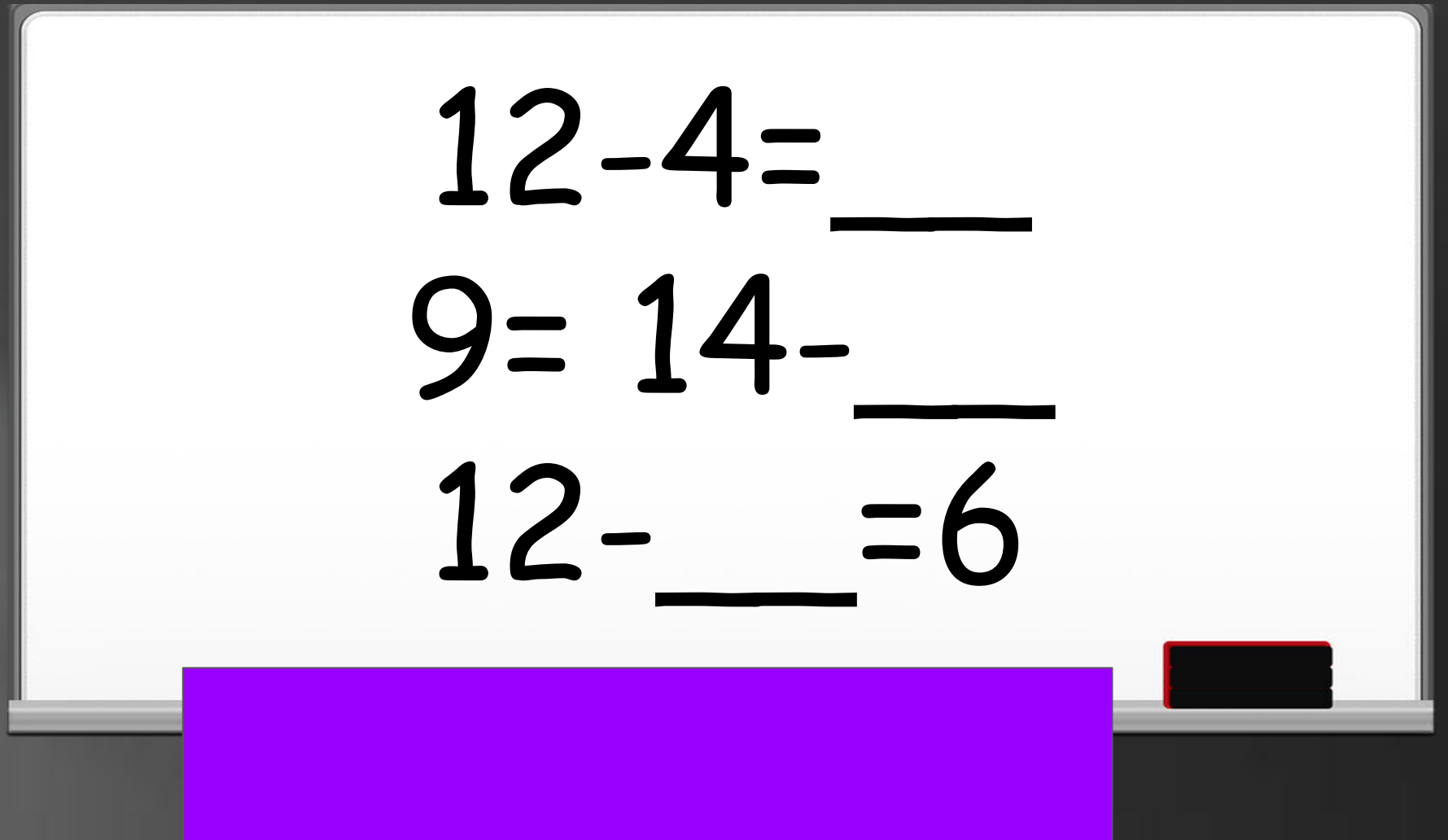
Anything But Five 1H Workplace

Game Board

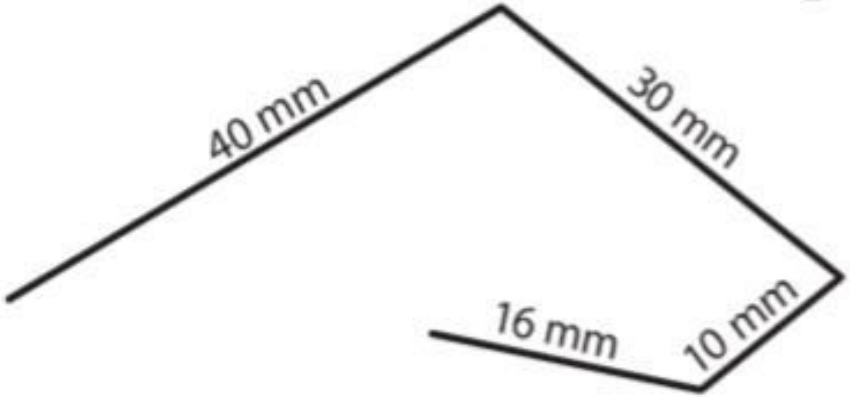


Unit 1 Post Assessment Review


___ = 8+6
___ = 7+4+3
___+8=10+7

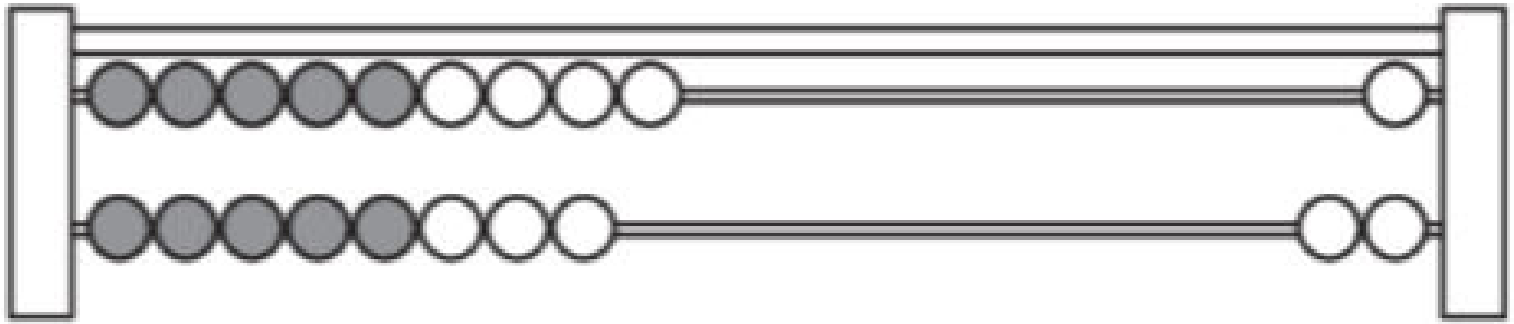

12-4=__
9= 14-__
12-__=6

Paul watched an ant walk this path. How far did the ant walk?

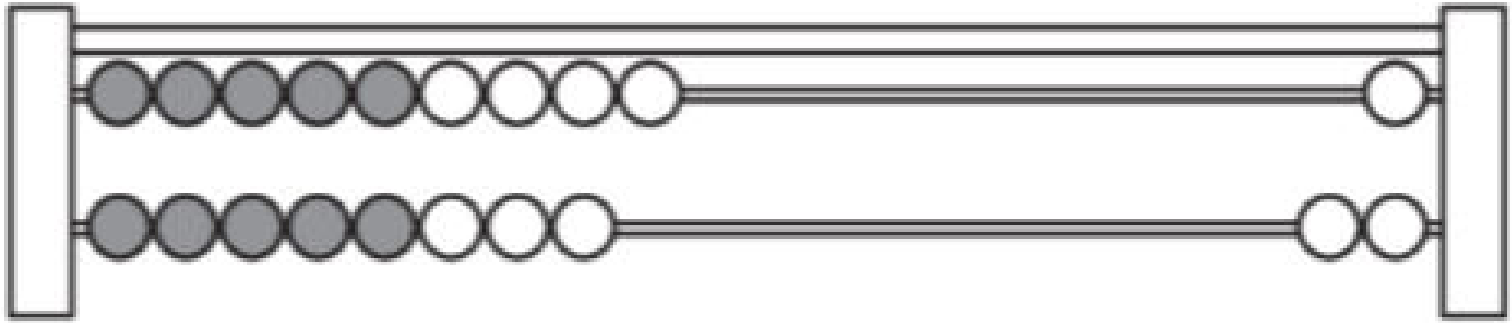


Alyssa has $85 in her savings account at the bank. Dylan has $38 in his savings account. How much more does Alyssa have than Dylan?

Mr. Kose has blueberry bushes in his garden. Yesterday he picked 118 blueberries. Today he picked 223 blueberries. How many blueberries did he pick in all?



Write an equation that could represent the beads on the left side.



Desmond says he can use 8+8 to figure out how many beads are on the left side. How can he do that?

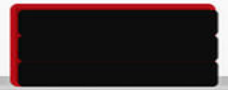
Lea says that when you add two odd numbers, you always get an even number. Do you agree with Lea? Why or why not?

Lillian measured some items from her room. She measured a book that was 8 inches long, a big stuffed bear that was 33 inches long, and a picture that was 15 inches long. Lillian lined up all of these items and measured them together. How long were all of the items together?

Last year, Seth went to an amusement park. He rode the Fantastic Freeway for 16 minutes, the spaceship Speedway ride for 13 minutes, and the Rackety Rocket Ride for 11 minutes. How long did Seth spend on alll three rides?

Ms. B delivers learning bags to students. On one street, she delivers 6 bags. On another street she delivers 12 bags. On a different street she delivers 15 bags. How many bags does Ms. B deliver on these three streets?






Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z