180 Days of
Number Sense Routines
Grade 2
Days 121-140

Calvert County Public Schools

180 Days of
Number Sense Routines

WHY IS DEVELOPING NUMBER SENSE IMPORTANT? Number Sense is the foundational building block for all strands of mathematics. Students who struggle in mathematics do not lack mathematical ability, but rather, they simply do not have a strong number sense on which to build their knowledge. Just as we are not born knowing how to read, we are not born with Number Sense. It must be developed and nurtured over time through a progression of understandings about numbers and their relationships to one another. With time and focused practice, students come to understand that numbers are meaningful, and outcomes are sensible and expected. Number Sense development encourages students to think flexibly and promotes confidence with numbers.

WHAT IS A NUMBER SENSE ROUTINE? A routine is an activity or event that occurs on a regular basis over time. Routines provide a framework for our day to support both the teacher and students. Routines help to build community and create a safe learning environment for students. Routines build a sense of belonging, ownership, and predictability which make the classroom a place to take risks. We learn through risk-taking; we take risks when we feel safe; we feel safe in a supportive learning environment; we create supportive learning environments through routines. Just as we have established routines for bus dismissal and fire drills, we must also establish routines that build mathematical thinking and discourse.

180 Days of
Number Sense Routines

HOW WILL THESE NUMBER SENSE ROUTINES BENEFIT ME AND MY STUDENTS? What teachers do and how they do it is critically important and has a profound impact on the quality of the educational experience of our students. Effective pedagogy, the art and science of teaching, is a key element in the learning process. The Number Sense are models of effective pedagogy and ensure that the critical Number Sense instruction we provide is equitable to all our students regardless of geography, teacher experience, or student circumstance. As we prepare our students to be mathematically proficient in their lives beyond the classroom walls, these Number Sense routines will help to lay the critical foundation for all future mathematical endeavors.

WHAT ARE THE CCPS IMPLEMENTATION EXPECTATIONS? Number sense routines have been developed for all 180 instructional days in grades 1-5. These routines are to be used every day, including early dismissal, late arrival, and field trip days. Because the routines do not require a specific order, it is permissible to trade routines among days to best match the time available. Number Sense must be built over time. With consistency, we can build students' number sense creating a strong mathematical foundation. If students or the teacher is struggling with a routine, it is expected that the teacher collaborate with colleagues to build capacity in that routine – do not just choose to skip the routine. If additional help is needed, the teacher should seek the assistance of their content specialist or mathematics supervisor.

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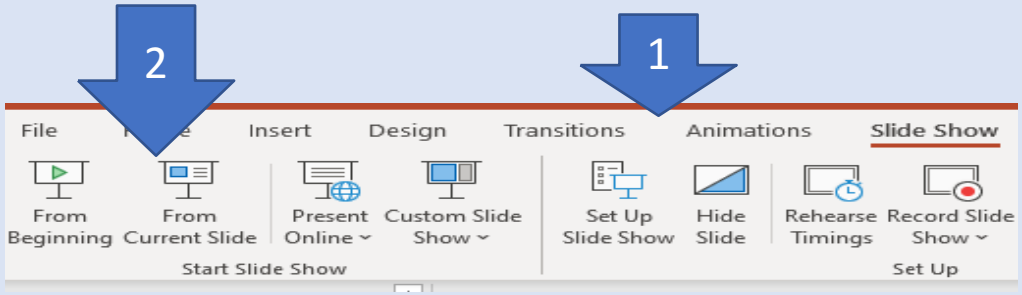
Number Sense Routines

HOW TO RUN POWERPOINT IN SLIDE SHOW MODE:

Slides with animation features, must run in Slide Show mode of PowerPoint for the animations to work correctly.

1. Select <Slide Show> from the menu at the top
2. Select <From Current Slide>



HOW TO ANNOTATE STUDENT THINKING ON THE SLIDE:

- With the slide in Slide Show mode, right click on the slide
- Select <Pointer Options> then choose <Pen>

180 Days of
Number Sense Routines

Acknowledgements

We are grateful to those who have inspired this project – and there have been many. These slide decks were designed for Grades 1–5 with custom-built daily routines for each grade level. The nine routines blend original creations, adaptations, and borrowed OER materials. We have made our work available in Open Educational Resources so that others may benefit as we have. Our deepest gratitude and respect to all those who helped move our work forward, and a special thank you goes to the following whose own work had such a tremendous impact on our 180 Days of Number Sense Routines:

- *Decide & Defend* and *Quick Count* routines were adapted from templates created by Grace Kelemanik and Amy Lucenta at http://FosteringMathPractices.com
- *Estimation Clipboard, Esti-Mysteries,* and *Splat!* templates created by www.SteveWyborney.com
- *Same But Different* discussion from Developing Grayscale Thinking by Looney Math Consulting at https://www.samebutdifferentmath.com
- *Which One Doesn't Belong* tasks adapted from http://wodb.ca by Mary Bourassa

SKIP COUNTING COINS

Day 121

CHORAL COUNTING

- Today we will be counting coins.
- Take a look at the coins we have showing on the screen.
- How much money do you think that is? Calculate the total in your head and then we will choral count the total amount together (give time for students to think and calculate)

- Let's begin by identifying the types of coins we see.
- Which coin on this display has the greatest value? (quarter)
- How many pennies are in our count today? (4)
- Which coin appears on our display exactly 3 times? (dimes)
- What is the total value of 3 dimes? (30 cents)

- Point to the quarter.
- What is this first coin called? (quarter)
- What is its value? (25 cents)
- Let's begin counting with the quarter. As you say the total amount, I will write the total we have so far so we can keep track.
- Point to the quarter. Students say 25. You write 25 below the quarter.
- Next, we see a dime. If we add a dime to the quarter, what is our new amount? (35 cents)
- Write 35 below the dime.
- Is 35 the value of a dime? (no) Then why did I write 35 below the dime? (it is the total so far)
- Continue writing the total value below each coin as students choral count.
- At the end, ask, "If we had all of these coins in our pocket, how much money would we have?" (79 cents) "Is that more or less than a dollar?" (less) "Which is more money: 79 cents or 7 dimes?" (79 cents) "How much more?" (9 cents)

- REPEAT: Erase the values and repeat the process with greater fluidity.
- After the second count, discuss PATTERNS noted and how the patterns are related to the coins that were added on with each new value.
- Make a special note of transitional coins (i.e. when 55 changes to 60 instead of 65)

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SKIP COUNTING COINS

Day 121

CHORAL COUNTING









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Day 122

Esti-Mystery

Estimation Activity with clues!

Students use clues to solve the estimation mystery.
After all clues are revealed, students will have enough information to determine if their initial estimate was correct.

Clues are revealed one at a time with time to discuss and refine original estimates after EACH clue is revealed.
No one should be stuck with their original estimate – encourage mindful refinements.

Students may benefit from using paper and pencil to work through possibilities or consider creating a class chart where possibilities are added and crossed off as each clue is revealed.

ESTIMATION

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How many pencils?

As the clues appear, use the information to narrow the possibilities to a smaller set. Then use estimation to determine which of the remaining answers is the most reasonable.

You may want to use paper and pencil to keep track of the possible solutions.

Clue #1

The number is too big to be on your classroom 120 chart

Clue #2

The number is smaller than 124 + 26

Clue #3

There is a 2 in the ones place

Clue #4

You should have just 3 possible answers. What are they?

Clue #5

It's the one with the greatest value

By combining the clues and estimation, you now have enough information to determine the answer.

The Reveal
Click to see the answer.

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Day 123

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the CHECKLIST on the left side of the problem as a way to help organize the thinking process

- **READ to Understand:** Begin by having students discuss the question being asked. At this time, do NOT focus on the math calculations required or the answer. This step is designed for students to understand the context of the question (What is the gist of the question?)

- **DECIDE**: Pair or group students. Using a consistent pairing will make this routine more fluid so you do not have to take time to pair students every time you want them to discuss. Have students discuss the question and discuss the question and decide which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students draft a statement about their ideas (either as a group or individually and it can be written or oral – teacher's choice)

- **DEFEND**: Students share their ideas and defend their reasoning with the whole group. Encourage active listening and accountable talk.

- **RELECT**: To further develop comprehension, have students use ONE of the sentence starters on the "Reflect on Learning" slide after they have discussed and listened to new ideas with classmates.

NOTE: This is the CCPS adaptation of the original Decide and Defend protocol

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DECIDE & DEFEND

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

Day 123

DECIDE & DEFEND

Have students DECIDE on a number independently.
Then, ask students to talk with their thought partner to DRAFT an answer and discuss the strategy used
Listen as students discuss. Take notes. Make note of which students you will ask to share ideas.
Select students to DEFEND their ideas. Try to choose students who had the same correct answer but used different strategies.
Have students REFLECT on any new strategies they heard that were both effective and efficient.

Possible Strategies:

- 142 + 8 = 150 then 150 + 50 = 200 so 8 + 50 = 58
- 200 – 100 = 100 then 100 – 40 = 60 then 60 – 2 = 58
- 142 + 60 = 202 then 202 – 2 = 200 so 60 – 2 = 58

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Use Numbered Heads

READ to Understand

Decide

Draft

Defend

Reflect

Day 123

Yesterday we learned that this stack has **142 pencils**.

How many more pencils are needed to have a total of **200 pencils**?

42 **58** **68** **200**

[be ready to discuss your mental strategy]

DECIDE & DEFEND

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Day 123

Reflect on Learning

- A new math idea I learned today is…

DECIDE & DEFEND

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Day 124

25 + 25
25 + 26
25 + 28
24 + 27

TEACHER NOTES

BEFORE

This slide has the String of expressions that you will use for today's Number Talk. You can use Smart Ink, right click for PowerPoint Pen, or convert this slide to Smart Notebook so you can easily annotate on the slide. The annotation is an important part of the routine. The expressions should be presented one-at-a-time with skills building on one another.

DURING

Decomposing to Use Known Facts

- 25 + 25 = 50 (possibly relate to money and quarters)
- If 25 + 25 is 50 then 25 + 26 = 25 + 25 + 1 = 51
- 24 + 27 students MAY "take 2" from 27 to make 25 and "give 1" to 24 and then have one extra 25+25+1=51

Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

AFTER

Discuss the shortcut strategy of decomposing numbers to create friendly numbers or known values.

NUMBER TALK

25 + 25

Day 124

NUMBER TALK

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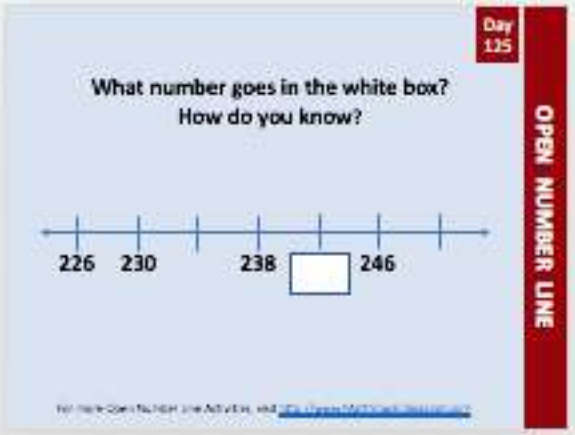
Use the NEXT SLIDES with students.

Teacher Notes

Day 125

OPEN NUMBER LINE



Prompt students to consider the INTERVAL.

- Remind students that the interval must be the same when numbers are equally spaced on a number line
- Remind students that although we often see an interval of "1" on a number line, it does not have to be 1
- Challenge and extend student thinking by asking, "Where would 232 be written on this number line?" (it would go halfway between the 230 and the next hash mark shown)

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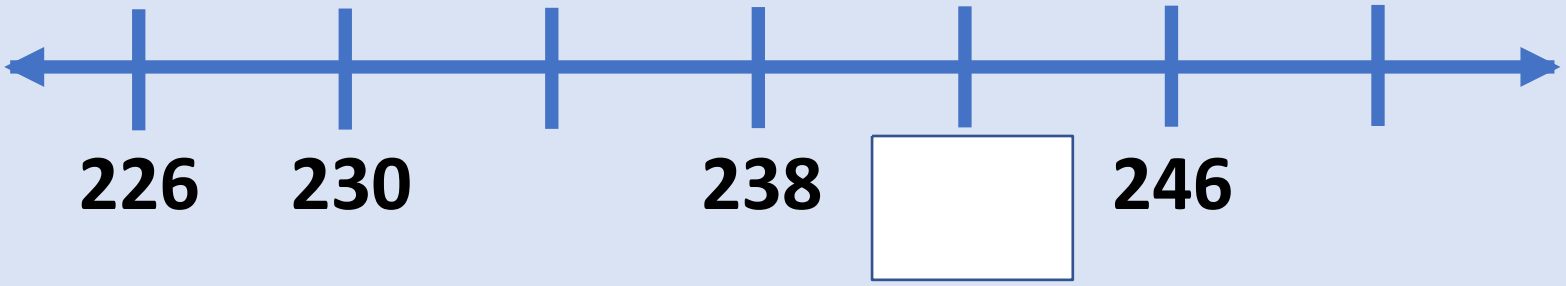
Day
125

What number goes in the white box?
How do you know?



OPEN NUMBER LINE

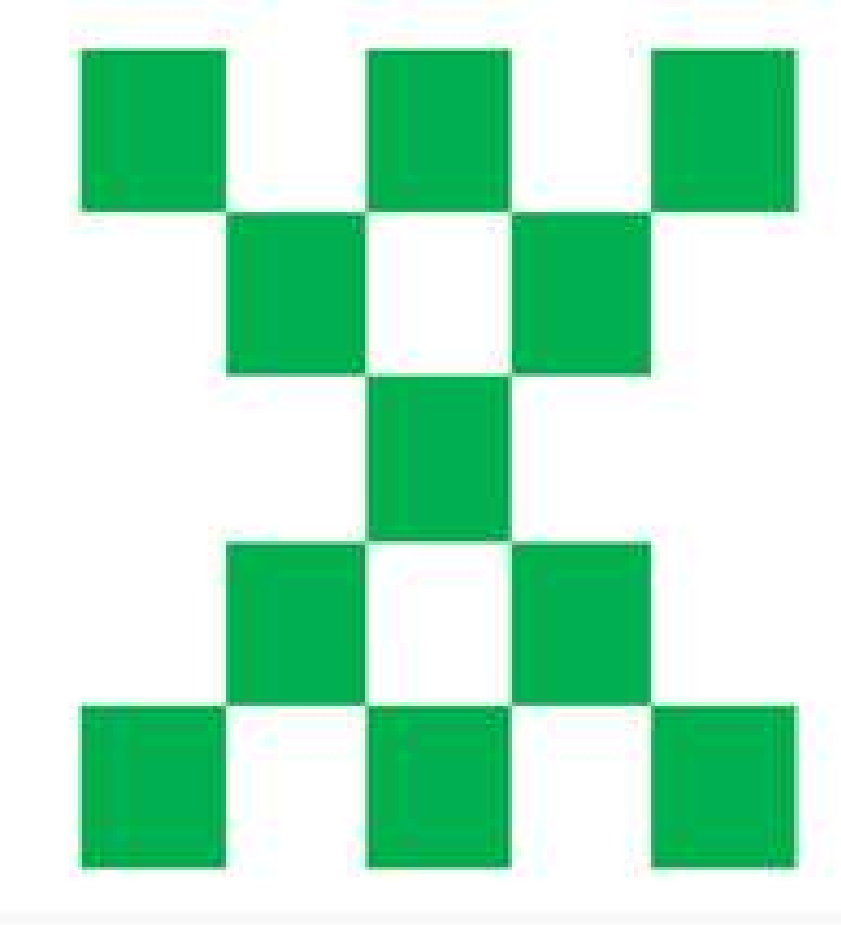
Directions for QUICK COUNT routines

Quick Count is an instructional routine designed to shift attention away from mindless calculations and toward necessary structural interpretations of mathematics. This routine fosters structural thinking, Math Practice 7, and promotes student discourse.

1. Pair students into Numbered Heads (or Peanut Butter Jelly partners, etc.)
2. Show students the first image slide for about 3-5 seconds depending on the complexity of the image and level/experience of the students.
3. With their partner, students discuss everything they can remember about the image.
4. After a minute of partner discussions, have students share ideas to the group.
5. Create a list of student ideas that students can refer to when the image is shown again.
6. Tell students that you are going to put the slide back up. Ask students to COUNT the images using some type of shortcut strategy (chunking, symmetry, arrays…)
7. Show the image again and leave it displayed as students look for counting shortcuts.
8. With their partner again, students discuss how many objects are in the image and how describe the shortcut counting strategy they used. Give time for partner discussions. Walk around and take notes about discussions to determine which students will share.
9. Use the slide with identical images as a comparative visual as students take turns explaining how they counted the objects in the image.
    - Use your notes to select different students with different approaches.
    - The student explains his/her shortcut as the teacher **gestures** over the image.
    - A **different student** is asked to **REPEAT the original student's shortcut** as the teacher **annotates** (circles, underlines) on the image to show the shortcut used.
    - Repeat the process using different student-generated shortcut strategies.
10. End by asking students to explain what was "mathematically important"

Day 126

What do you NOTICE?



http://www.visualpatterns.org

QUICK COUNT

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Day 126

QUICK COUNT

What did you NOTICE?

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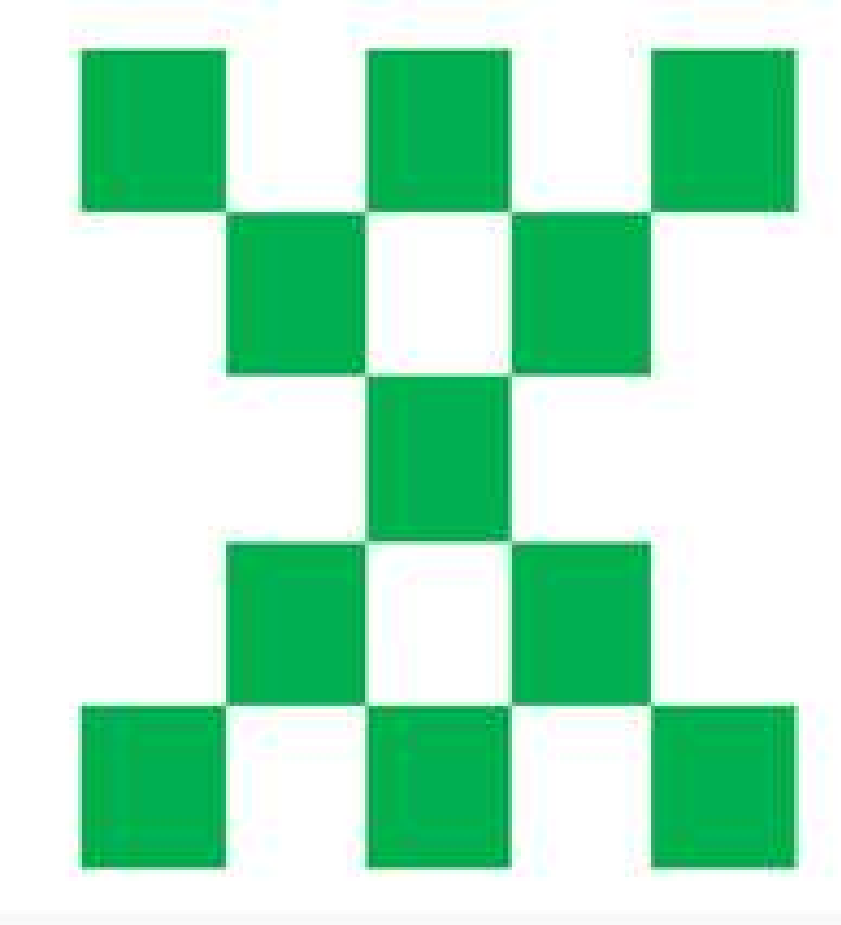
Day 126

How many green boxes?
What counting shortcut did you use?



QUICK COUNT

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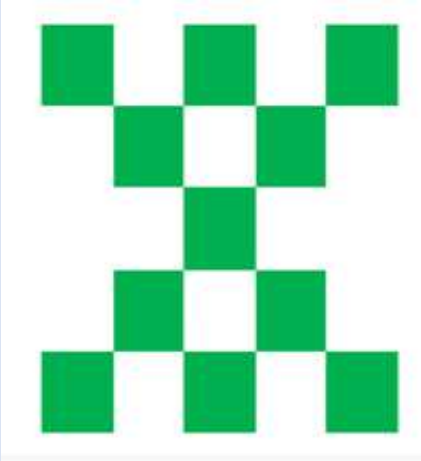
I noticed ____ so I _____

(They) noticed ____ so they___

Day 126

QUICK COUNT



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Day 126

Reflect

What was mathematically important?

QUICK COUNT

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Intro

SAME BUT DIFFERENT

About the SAME BUT DIFFERENT Routine

Same But Different is a powerful routine for use in math classrooms. The *Same but Different* routine compares two things **calling attention to both how they are the same and how they are different**. This apparent paradox is the beauty of the activity. In this analysis, *instead of making a choice and trying to prove that these are the same or prove that they are different, **students consider how two items can be both**.* This is a critically important distinction from many other tasks.

One of the reasons students struggle in math is that they struggle to make connections. Someone who has poorly developed number sense might see each number as its own thing, and not part of the larger network of mathematical ideas. A mathematical conversation using the language *same but different* that calls attention to how a new concept in math is the same as another familiar and comfortable concept but different in a specific way is a useful conversation in growing a student's network of connections. Building these connections could also reduce anxiety as children become the sense-makers in the conversation.

Source: www.samebutdifferent.net.com/about

Facilitating the SAME BUT DIFFERENT Routine

1. Present the slide
2. Ask students to THINK about how the two items are both the SAME AND DIFFERENT.
3. Do not allow conversation at this time -- give ample think time for students to consider the possibilities
4. After some time has been given (a minute or so), ask students to talk with their Number Head partner or small group about their ideas -- allow this conversation to dominate the time dedicated to this routine
5. As students talk with partners/groups, walk around and listen to the conversations. Resist jumping in; let them grapple with the ideas with their peers.
6. As you walk around listening, take notes. You will use these notes to help direct the whole group conversation.
7. Refocus student attention to the front of the room for a whole group debriefing session. Ask students to share some of their ideas about how the two were both the SAME and DIFFERENT – use the notes you took to bring out important ideas that will benefit the entire room.

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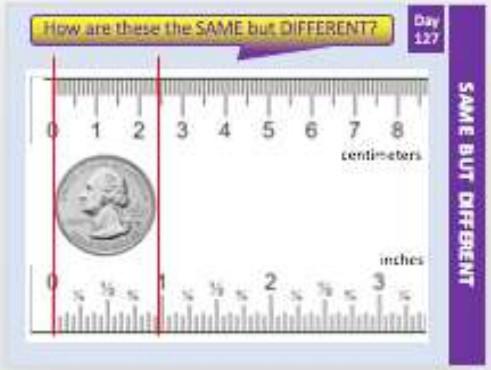
Day 127

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.

Additional ideas encouraged!

- Students may simply recognize a component that makes them the “same” OR “different”
- Some students may state a same/different relationship and say that they are the “same because…. But different because….”



The goal is for students to recognize that we can measure the same item in different units and get different numbers. This does not mean that the item changed it's size, but rather the size of the unit determines how many of those units are needed to measure the item. Since a centimeter unit is smaller than an inch unit, we need more centimeter units to measure the same item.

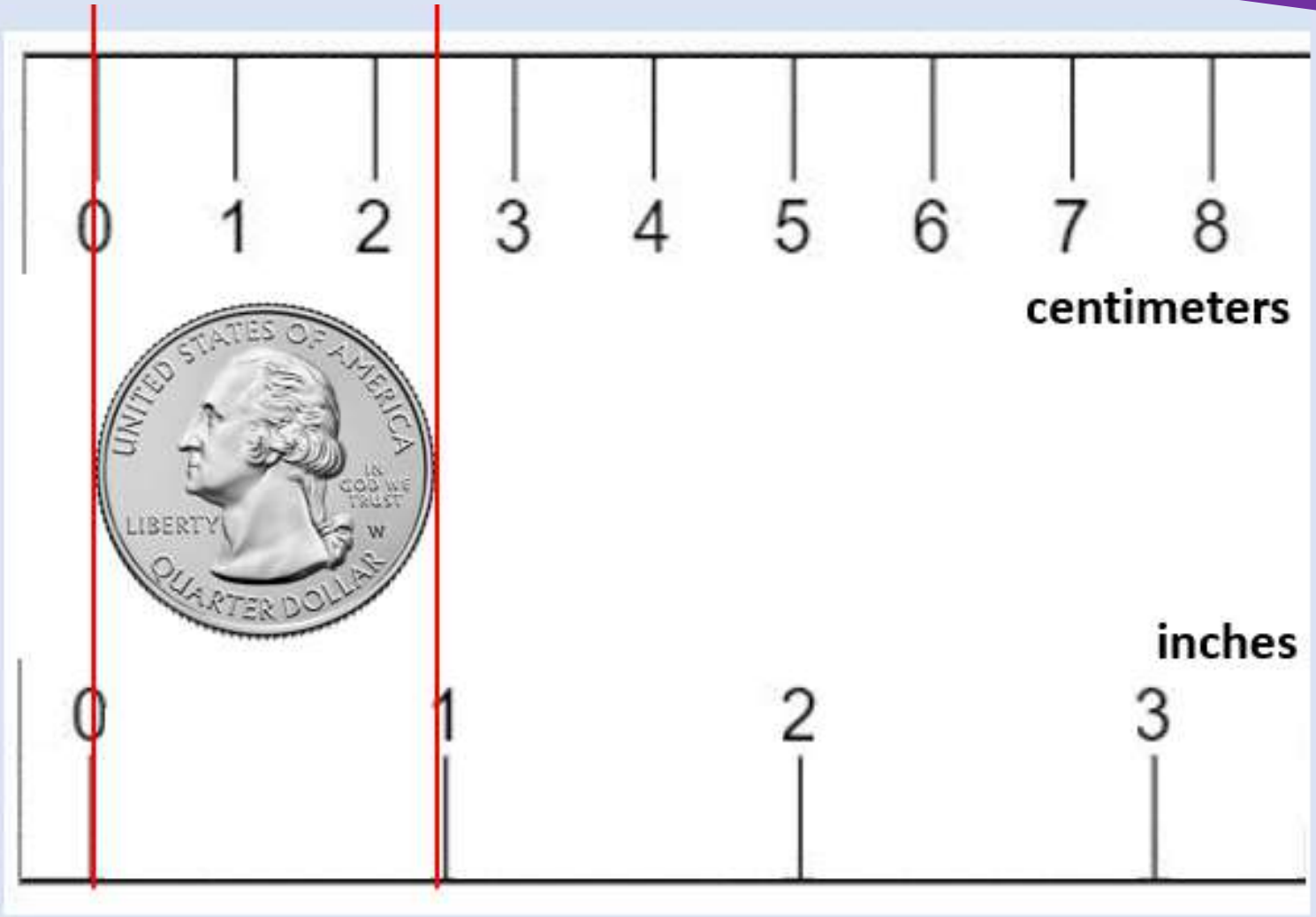
POSSIBLE RESPONSES

- Both rulers are measuring a quarter, but the number is different (a little more than 2 cm vs. almost 1 inch)
- Both show rulers measuring the same quarter, but one ruler is a centimeter ruler and the other is an inch ruler
- Both show the same length but are expressed in different units so the numbers are not the same

SAME BUT DIFFERENT

How are these the SAME but DIFFERENT?

Day 127



SAME BUT DIFFERENT

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Day 128

SPLAT!

37

How did you calculate it?

How else could you calculate it?

What is the total?

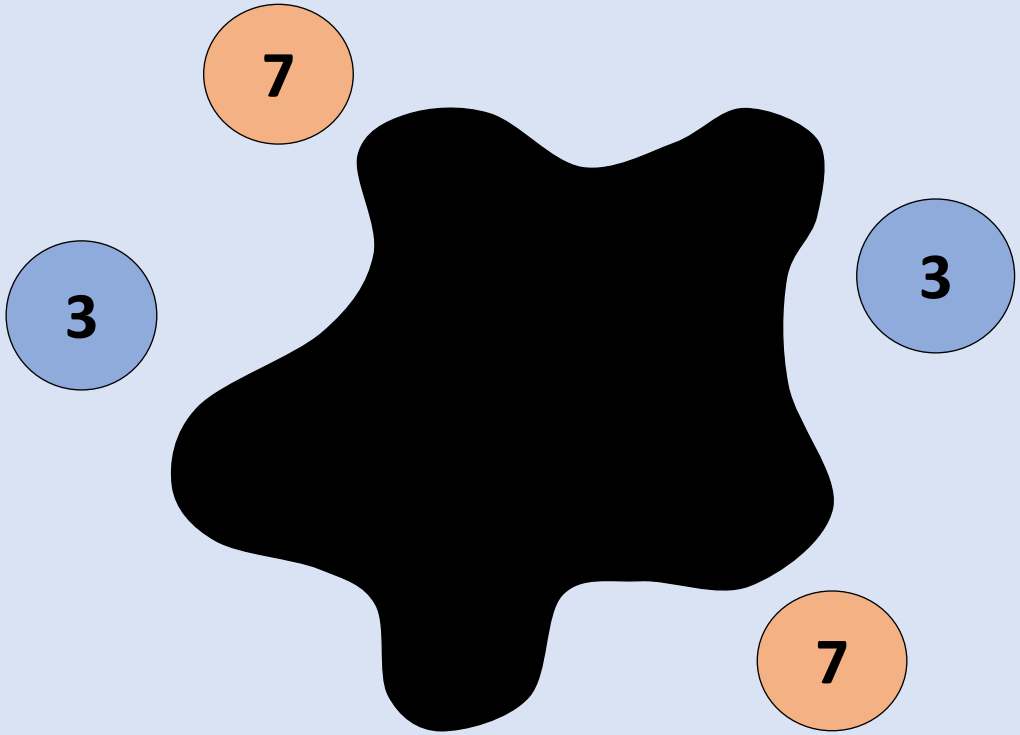
What is the sum of the numbers that are under the splat?

How do you know?

What could those numbers be?

Are there other possible combinations?

Let's look under the splat to see what numbers are there.

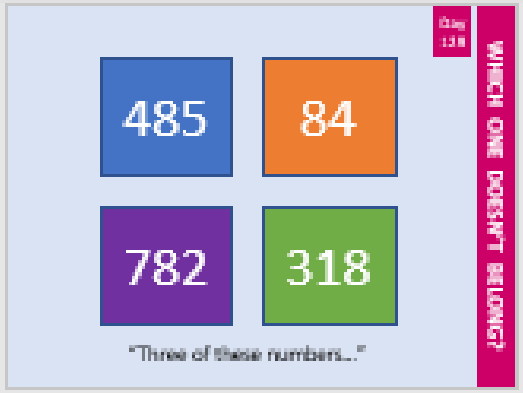


Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

Day 129

WHICH ONE DOESN'T BELONG?



Possible Responses:

- Three of these numbers are EVEN numbers. 485 is not an even number.
- Three of these numbers are 3-DIGIT numbers. 84 is not a 3-digit number.
- Three of these numbers have a value that is LESS THAN 500. 782 is not less than 500.
- Three of these numbers have an 8 in the TEN PLACE VALUE. 318 does not have an 8 in the TENS PLACE value.

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Day 129

WHICH ONE DOESN'T BELONG?

485

84

782

318

"Three of these numbers…"

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Day 130

CHORAL COUNTING

Ten Less – Ten More

Today's Choral Counting will be a little bit different than usual. There is a number line on the next page. This activity will only run in **Slide Show mode of PowerPoint.**

You will notice that the page has a number line with "one jump" before and after indicated. The interval we will use today is +/-10.

When the number is revealed, a +10 or -10 arrow will appear above the numbers line. Students will say the number that is +10 or -10 from the given number on the number line.

Remember, go slowly enough for students to respond with a choral response.

Remember: Be sure to use the PowerPoint version of the activity today.
This activity will only run correctly in PowerPoint using SLIDE SHOW "from current slide".

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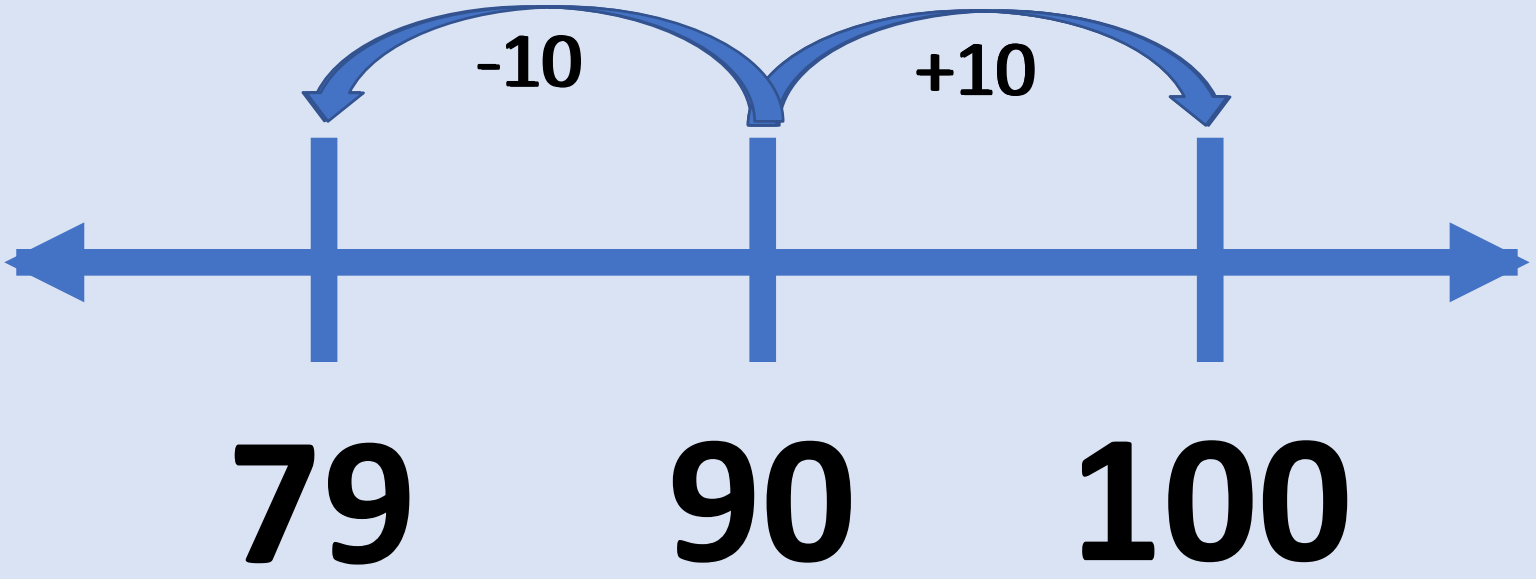
Day 130

TEN LESS – TEN MORE



CHORAL COUNTING

*This activity will only run correctly in PowerPoint using SLIDE SHOW “from current slide”

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Day 131

Esti-Mystery

Estimation Activity with clues!

Students use clues to solve the estimation mystery.
After all of the clues are revealed, students will have enough information to determine if their initial estimate was correct.

Clues are revealed one at a time with time to discuss and refine original estimates after EACH clue is revealed.
No one should be stuck with their original estimate – encourage mindful refinements.

Students may benefit from using paper and pencil to work through possibilities or consider creating a class chart where possibilities are added and crossed off as each clue is revealed.

ESTIMATION

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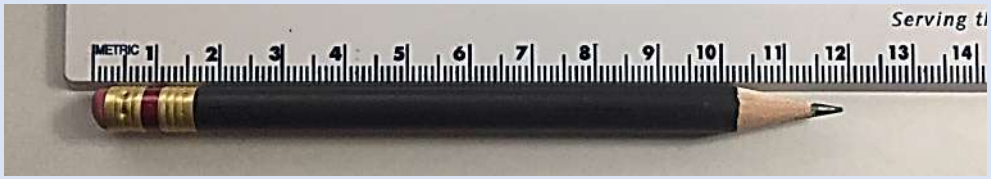
The black pencil is about 12 cm long? How long is the white pencil?



As the clues appear, use the information to narrow the possibilities to a smaller set. Then use estimation to determine which of the remaining answers is the most reasonable.

You may want to use paper and pencil to keep track of the possible solutions.

Clue #1

The black pencil is about 12 cm long

Clue #2

The unsharpened pencil is about 19 cm long

Clue #3

What are 6 possibilities?

Clue #4

Why is 13 not a reasonable solution?

Clue #5

It is an odd number

By combining the clues and estimation, you now have enough information to make a reasonable estimate.

The Reveal
Click to see the answer.

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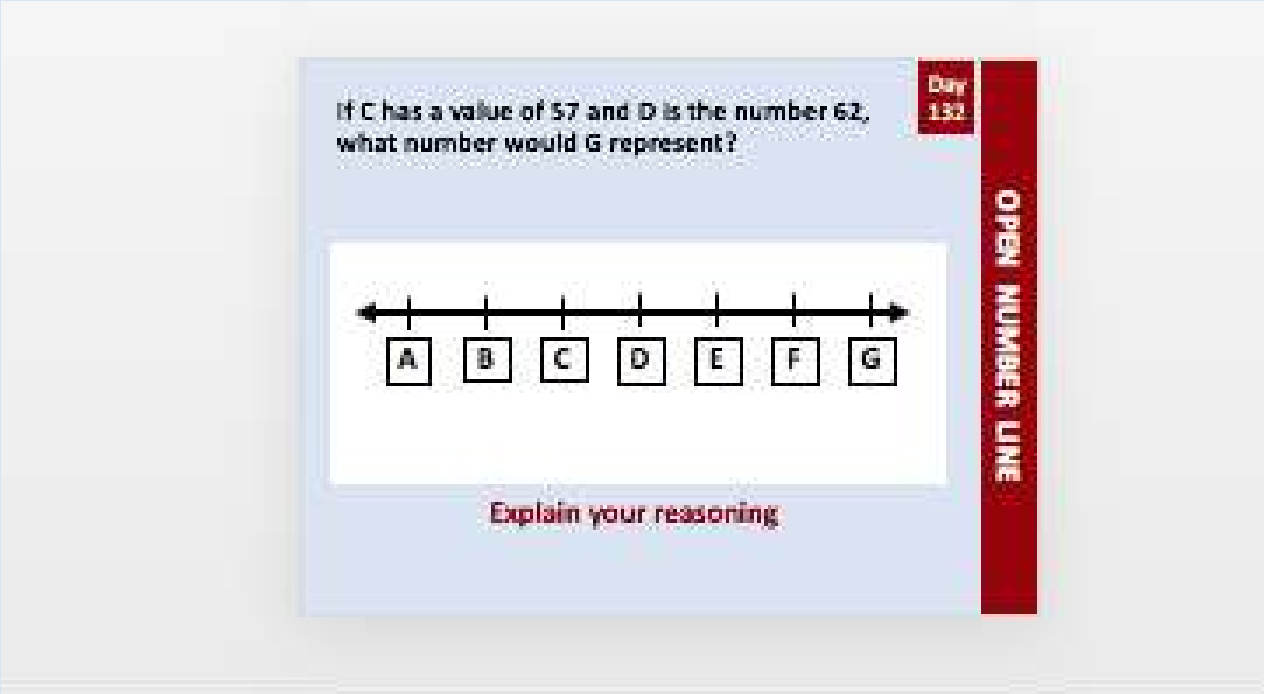
Use the NEXT SLIDE with students.

Day 132

Remember to give students plenty of Think Time and partner discussion time before the class discussion.



G = 77
The interval is 5.
If D is 62, then F is 72 since it is two intervals away.
Since G is one interval from F is must be 77 since 72+5=77

OPEN NUMBER LINE

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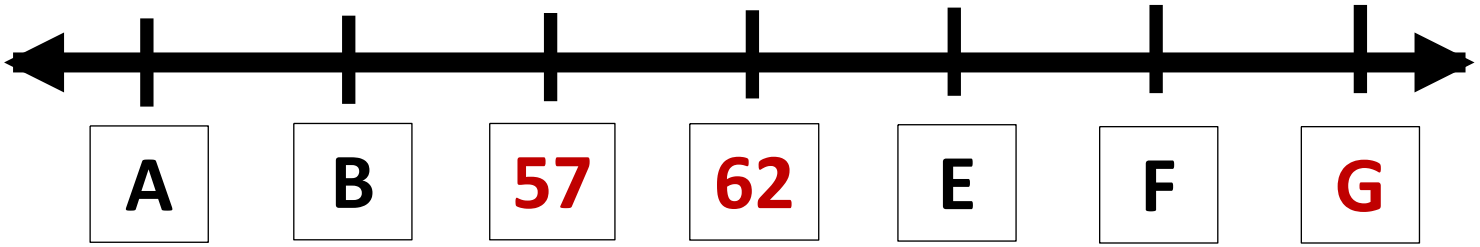
Day 132

OPEN NUMBER LINE

If C has a value of 57 and D is the number 62, what number would G represent?



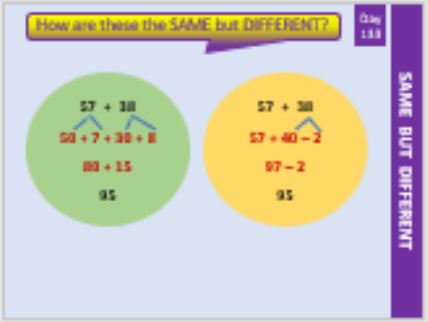
Explain your reasoning

Day 133

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

- Students may simply recognize a component that makes them the “same” OR “different”
- Some students may state a same/different relationship and say that they are the “same because…. But different because….”



- Both have a sum of 95 but one used addition and the other used some subtraction.
- The green one decomposed the numbers and added. The yellow one brought 38 up to a friendly number and then subtracted.
- The green one decomposed 57; the yellow one did not decompose 57
- The green one decomposed 38 through addition. The yellow one decomposed 38 using subtraction facts.
- The final step on the green one was addition. The final step on the yellow one was subtraction.

SAME BUT DIFFERENT

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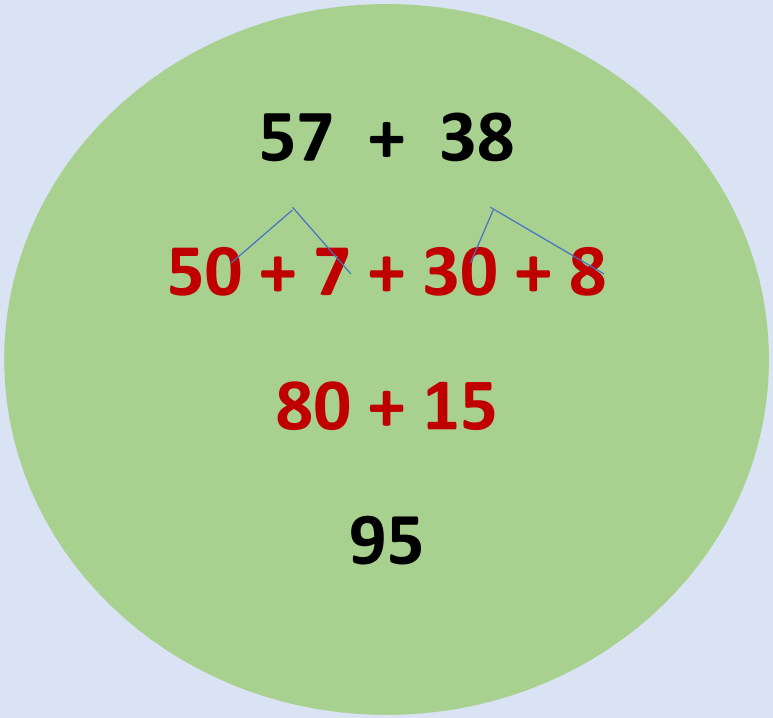
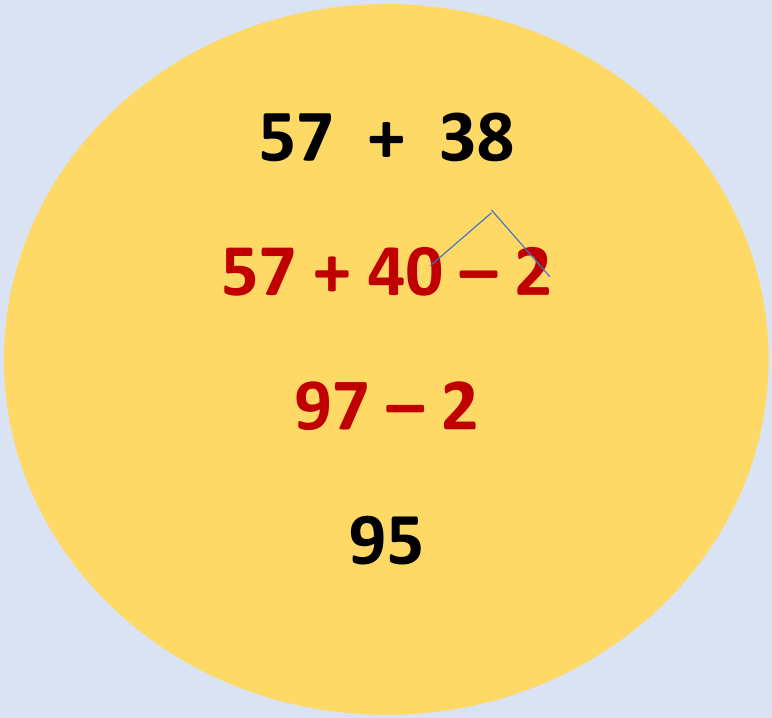
How are these the SAME but DIFFERENT?

Day 133

SAME BUT DIFFERENT





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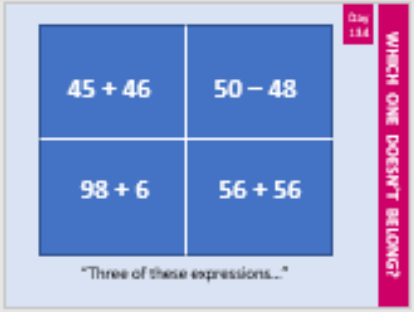
Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

Day 134

WHICH ONE DOESN'T BELONG?



Possible Responses:

- Three of these expressions have two even numbers. 45 + 46 is not two even numbers.
- Three of these expressions are addition expressions. 50 – 48 is not an addition expression.
- Three of these expressions have two 2-digit numbers. 98 + 6 does not have two 2-digit numbers.
- Three of these expressions have two different values. 56 + 56 does not have 2 different values.

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Day 134

WHICH ONE DOESN'T BELONG?

45 + 46	50 – 48
98 + 6	56 + 56

"Three of these expressions…"

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Day 135

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the CHECKLIST on the left side of the problem as a way to help organize the thinking process

- **READ to Understand:** Begin by having students discuss the question being asked. At this time, do NOT focus on the math calculations required or the answer. This step is designed for students to understand the context of the question (What is the gist of the question?)

- **DECIDE**: Pair or group students. Using a consistent pairing will make this routine more fluid so you do not have to take time to pair students every time you want them to discuss. Have students discuss the question and discuss the question and decide which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students draft a statement about their ideas (either as a group or individually and it can be written or oral – teacher's choice)

- **DEFEND**: Students share their ideas and defend their reasoning with the whole group. Encourage active listening and accountable talk.

- **RELECT**: To further develop comprehension, have students use ONE of the sentence starters on the "Reflect on Learning" slide after they have discussed and listened to new ideas with classmates.

NOTE: This is the CCPS adaptation of the original Decide and Defend protocol

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DECIDE & DEFEND

Use Numbered Heads

READ to Understand

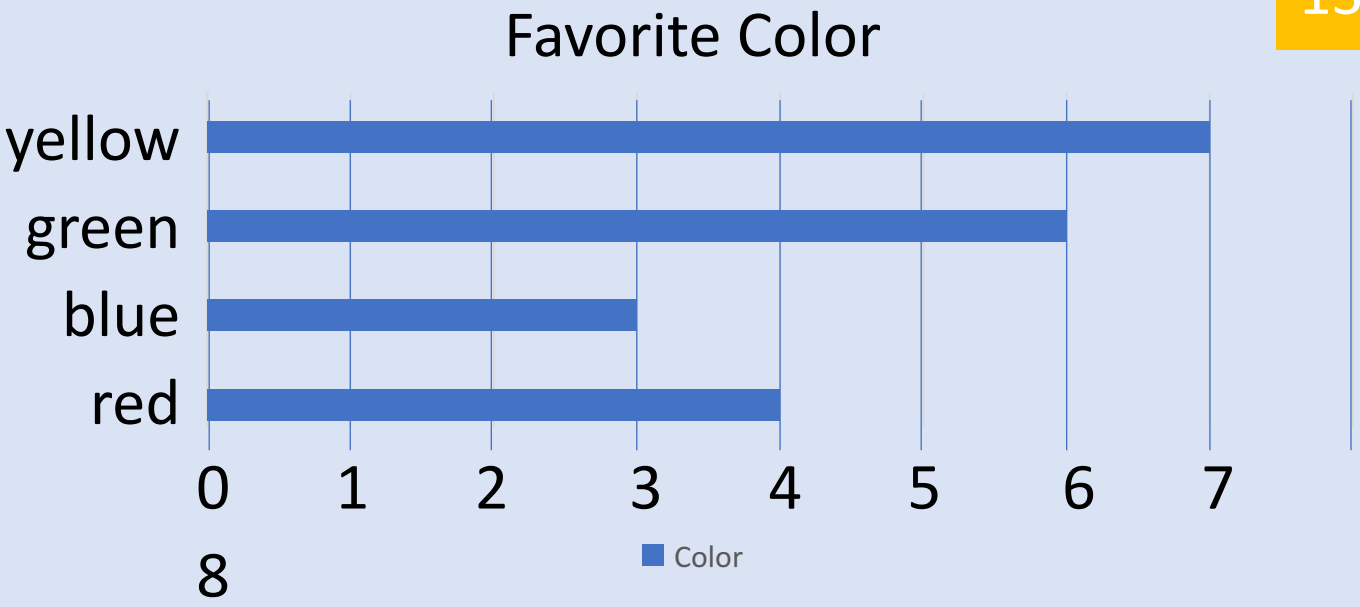
Decide

Draft

Defend

Reflect

Day 135



The answer to Mr. George's question is **9**.
Which question did Mr. George ask his students?

A. **If three more students vote for yellow, how many votes would yellow have?**

B. **How many students voted for either green or blue as their favorite color?**

DECIDE & DEFEND

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Day 135

Reflect on Learning

- A new math idea I learned today is…

DECIDE & DEFEND

Calvert County Public Schools

63 – 40
63 – 44
66 – 30
66 – 38

Day 136

NUMBER TALK

TEACHER NOTES

BEFORE

This slide has the String of expressions that you will use for today's Number Talk. You can use Smart Ink, right click for PowerPoint Pen, or convert this slide to Smart Notebook so you can easily annotate on the slide. The annotation is an important part of the routine. The expressions should be presented one-at-a-time with skills building on one another.

DURING

Decomposing to Find Subtraction Shortcuts

- **63 – 44**
  63 – 40 – 4
  23 – 4
  23 – 3 – 1
  20 – 1 = 19

- **66 – 38**
  66 – 30 – 8
  36 – 8
  36 – 6 – 2
  30 – 2 = 28

Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

AFTER

Discuss the shortcut strategy of decomposing numbers mentally subtract the values more efficiently. It may seem like more steps in the beginning, but once students have been given the opportunity for many, many practice turns mentally subtracting in this manner, they will not only become very efficient using this subtraction shortcut,
but they will also understand the concept of subtraction better.

Light the Future
Calvert County Public Schools

63 – 40

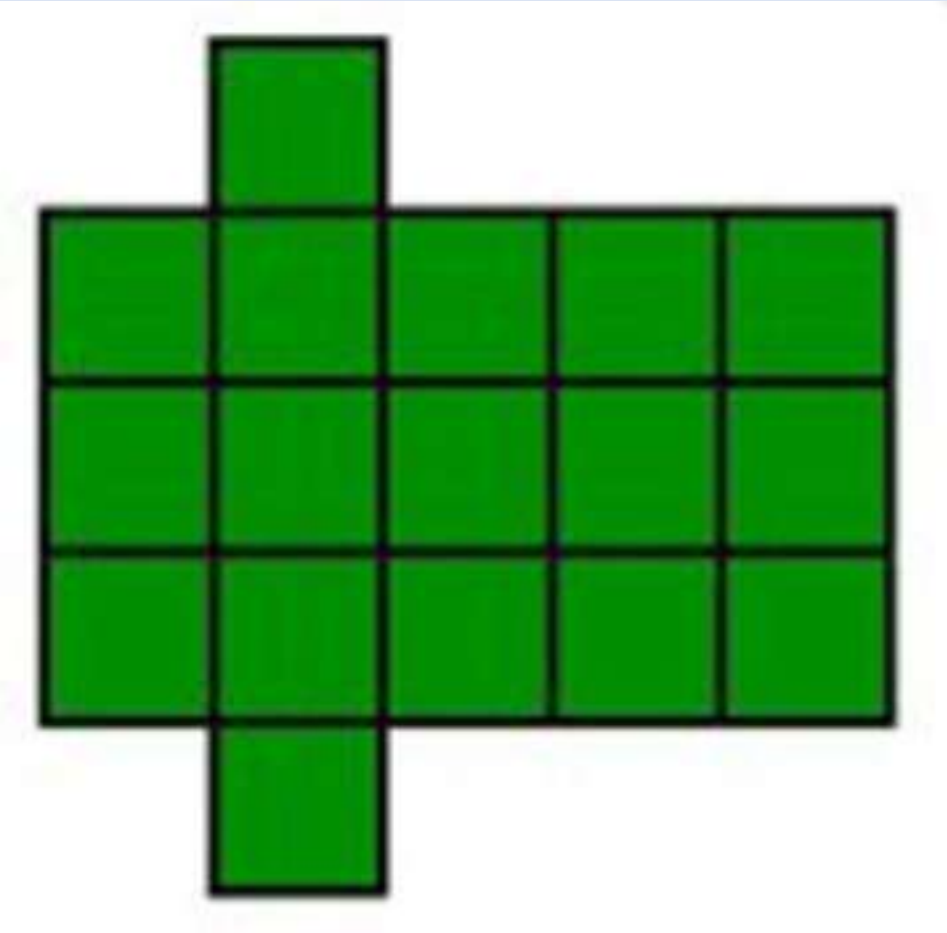
Day
136

NUMBER TALK

Calvert County
Public Schools

Day 137

What do you NOTICE?



http://www.visualpatterns.org

QUICK COUNT

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Day 137

QUICK COUNT

What did you NOTICE?

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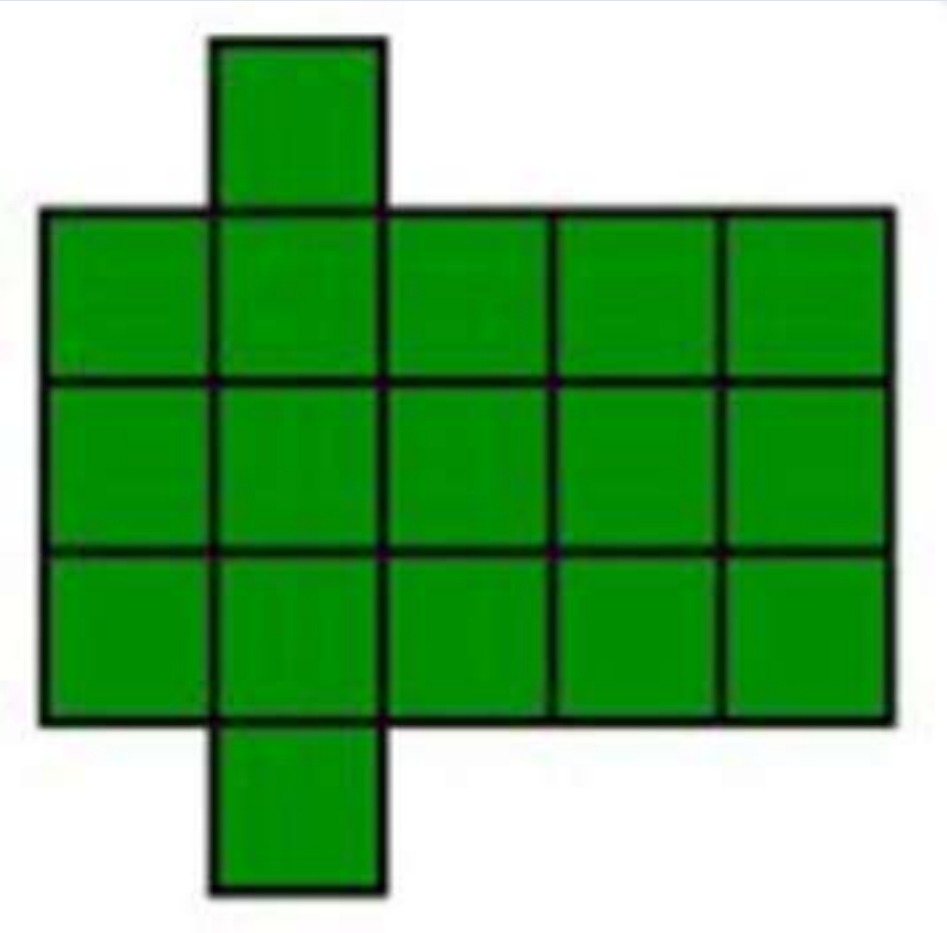
Day 137

How many do you see?
What counting shortcut did you use?

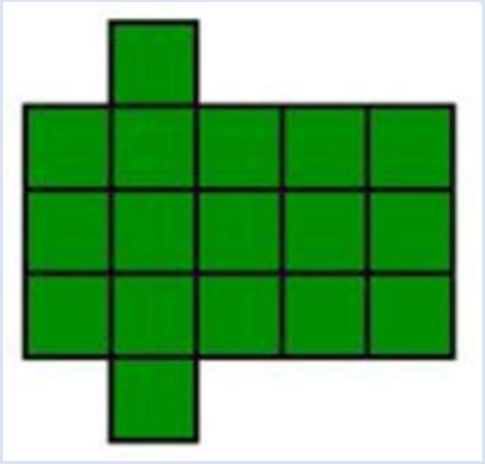


QUICK COUNT

Calvert County Public Schools

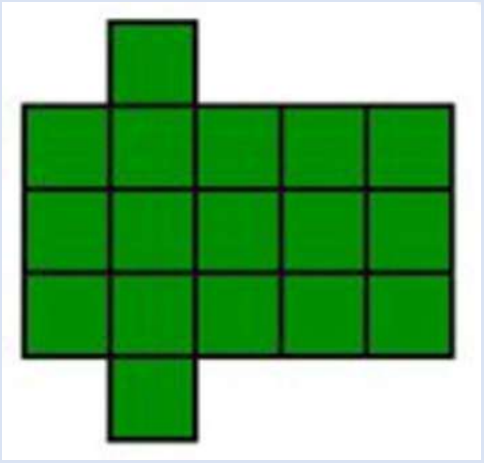
Day 137

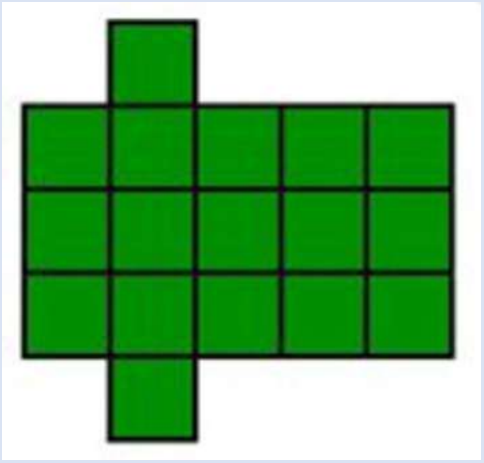
QUICK COUNT



I noticed ____ so I _____

(They) noticed ____ so they _____





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Day 137

Reflect

What was mathematically important?

QUICK COUNT

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Splat!
Look at the number in the white box.
What will the total of all of the dots be?

What can we learn from these numbers?

85

Day 138

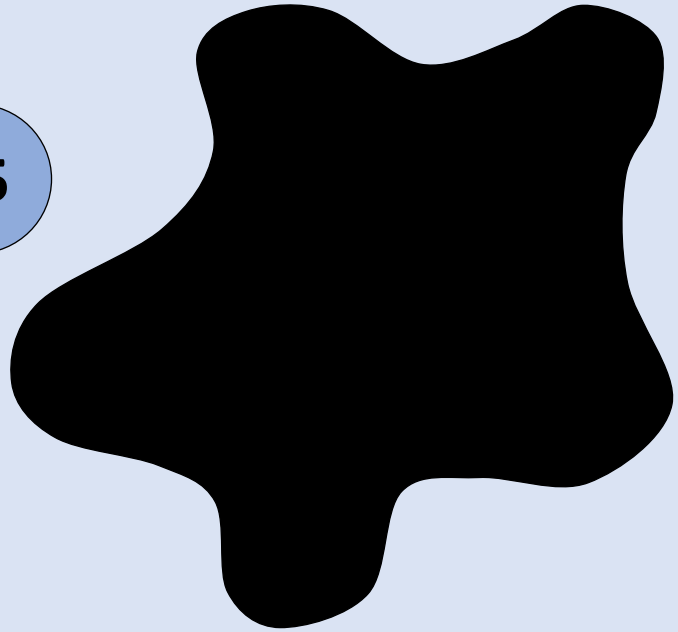
How did you calculate it?

40

What is the sum of the numbers that are under the splat?

are not hidden.
hat is the total value
hat is NOT hidden?

15



How did you calculate it?

How else could you calculate it?

What numbers could be hiding on the dots?

SPLAT!

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Adapted from Steve Wyborney's slide deck

Day 139

Esti-Mystery

Estimation Activity with clues!

Students use clues to solve the estimation mystery.
After all of the clues are revealed, students will have enough information to determine if their initial estimate was correct.

Clues are revealed one at a time with time to discuss and refine original estimates after EACH clue is revealed.
No one should be stuck with their original estimate – encourage mindful refinements.

Students may benefit from using paper and pencil to work through possibilities or consider creating a class chart where possibilities are added and crossed off as each clue is revealed.

ESTIMATION

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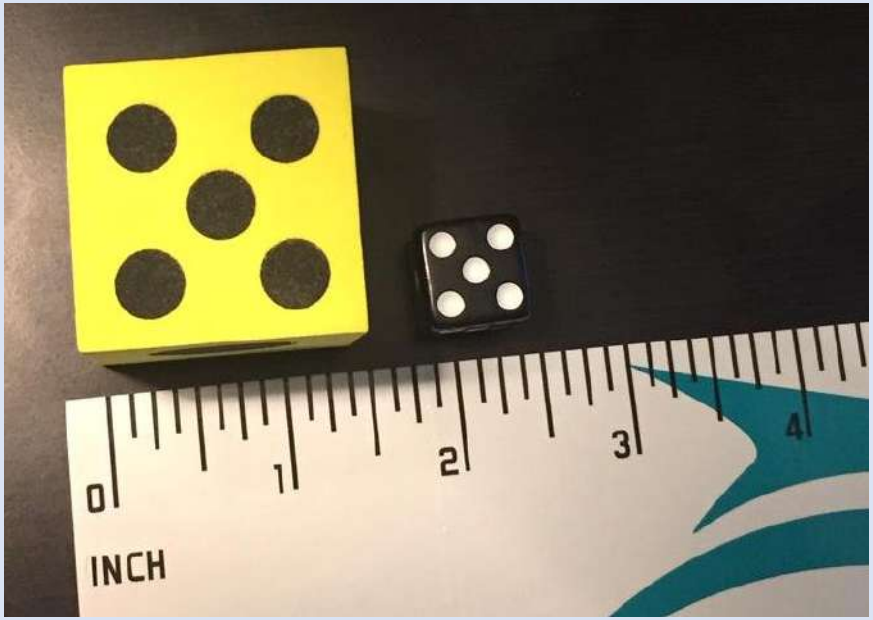
What is the length of the giant red number cube?



On the next slide, you will see a giant red number cube.

Use the clues to help you estimate the length of its side.

The yellow cube is about 1½ inches long.

Clue #1

The yellow number cube is 1½ inches long

Clue #2

The black number cube is only half of an inch long

Clue #3

The length of the red cube is not a whole number

Clue #4

The red cube is the same length as 3 yellow cubes

Clue #5

The red cube is the same length as 9 black cubes

By combining the clues and estimation, you now have enough information to determine the answer.

The Reveal
Click to see the answer.

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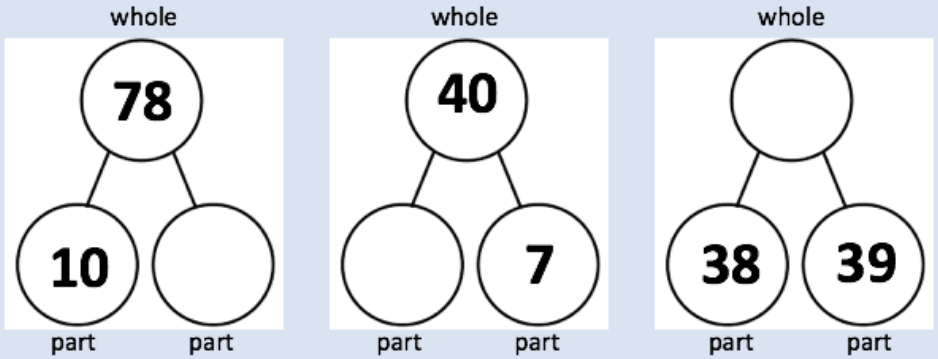
Day 140



NUMBER TALK

TEACHER NOTES

BEFORE

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DURING

Using strategies to determine missing values in Number Bonds

- Students should be able to quickly use their 10 more/10 less strategies to determine the part is 68
- Student should use their "Make Tens" strategies to determine that 7+3=10 so 7+33=40
- Students may choose to use a double fact of friendly numbers 40+40=80 then 80-3=77

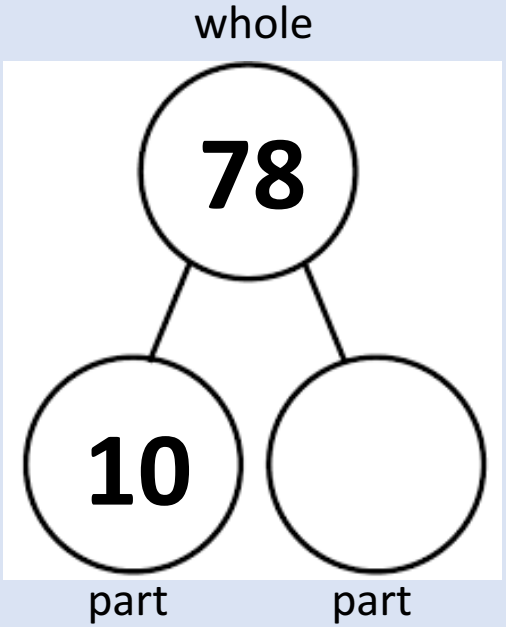
Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

AFTER

Discuss the various strategies used and discuss how using a strategy is more efficient than counting one-by-one

What Number is Missing?

Day 140



NUMBER TALK

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