180 Days of
Number Sense Routines
Grade 1
Days 141-160

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.
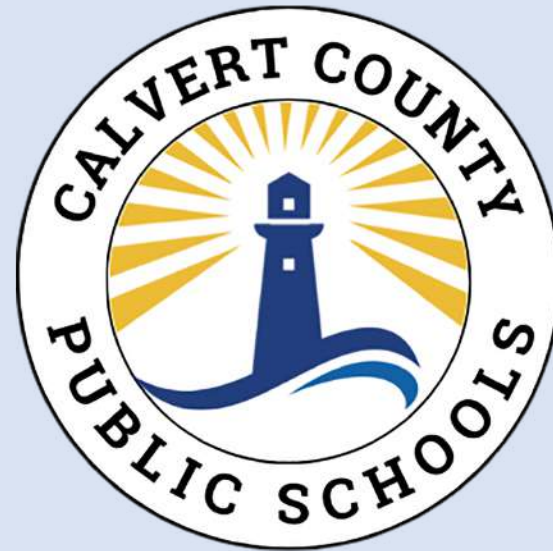
180 Days of
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HOW WILL THESE NUMBER SENSE ROUTINES BENEFIT ME AND MY STUDENTS? What teachers do and how they do it is critically important and has a profound impact on the quality of the educational experience of our students. Effective pedagogy, the 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 Prekindergarten through Grade 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 within the week 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, 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.

180 Days of
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 OER materials. We have made our work available in Open Educational Resources so that others may benefit as we have from the collaboration of other educators. 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

- *As Close As It Gets* https://www.mathisfigureoutable.com/ascloseasitgets by Pam Harris

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Which answer is
As Close as it Gets?

Explain that NONE of the answers shown are the exact solution.

- Students should use **mathematical <u>reasoning</u>** to select the answer that is **closest** to the actual answer. **Discourage complex calculations, encourage estimation and reasoning.**

- Students are expected to **explain the reasoning they used** to select the answer that they think is closest to the actual answer.

ESTIMATION

Use the NEXT SLIDES with students.

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

Which answer is
As Close as it Gets?

Day 141

59 + 9

| 50 | 60 | 70 |

ESTIMATION

What mathematical reasoning did you use to decide on the closest answer?

70
Students may reason that 59 is close to 60 and 9 is close to 10,
so, 60 + 10 = 70

Which answer is
As Close as it Gets?

59 + 9

| 50 | 60 | 70 |

What mathematical reasoning
did you use to decide on the closest answer?

ESTIMATION

1.NBT.C.4
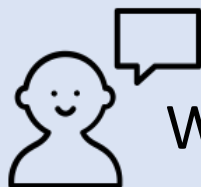
Adding Tens

- Today we will count together to ADD 10.
- We are going to begin on the number 7.
- Show students the 120 chart on the next page or use a chart hanging in your classroom.
- Ask students to think about what number is 10 more than 7.
- Discuss student ideas.
- Let's count slowly so I can mark your counting numbers on the chart.
- When we are finished, we will look for patterns in the numbers I circled.
- As students CHORAL COUNT, circle the numbers on the chart.
- Discuss the patterns that students notice.
  - **Ten place increases by 1**
  - **All of the numbers are in the same column making a straight line**
  - **The ones place is the same value for all of the numbers**
  - **The tens place increases by 1 ten as you move down each row**

CHORAL COUNTING

1	2	3	4	5	6	⑦	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

CHORAL COUNTING

1.NBT.C.5

Use the NEXT SLIDE with students.

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

Possible Responses:

- Three of these double ten-frames have a total of 20 dots inside/outside the frame. Frame A does not have 20 dots, it only has 19 (not enough to fill the frame).
- Three of these double ten-frames are turned horizontally. Frame B is not horizontal, it is vertical.
- Three of these double ten-frames have extra dots that are black. Frame C does not have black dots, it has red dots.
- Three of these double ten-frames have a total of 16 INSIDE the frame. Frame D does not have a total of 16 inside the frame, it has 15.
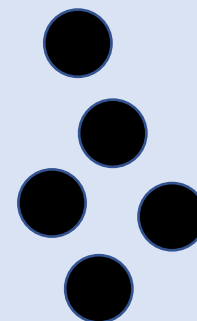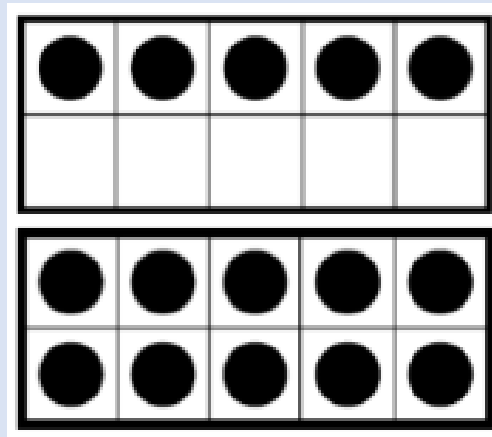
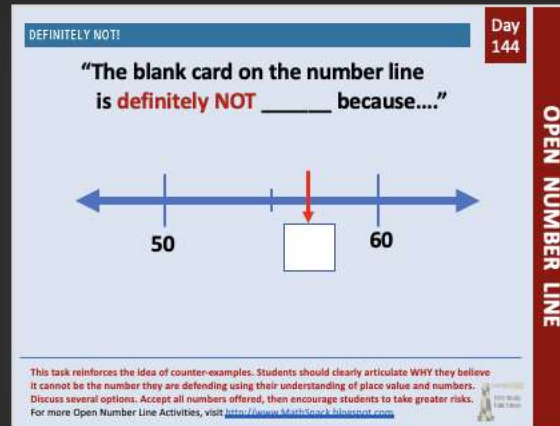A B
C D

WHICH ONE DOESN'T BELONG?

"Three of these double ten-frames…."

1.R.1

Use the NEXT SLIDE with students.

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

DEFINITELY NOT!

Day 144

"The blank card on the number line is **definitely NOT** _____ because...."

50   60

OPEN NUMBER LINE

This task reinforces the idea of counter-examples. Students should clearly articulate WHY they believe it cannot be the number they are defending using their understanding of place value and numbers. Discuss several options. Accept all numbers offered, then encourage students to take greater risks. For more Open Number Line Activities, visit http://www.MathSpark.blogspot.com

Possible responses:
- Any number that is less than 50 could be named
- Any number that is greater than 60 could be named
- *Higher precision:* Any number that is less than 55 since the box is to the right of the halfway point
- *Highest precision:* Any number that is greater than 57
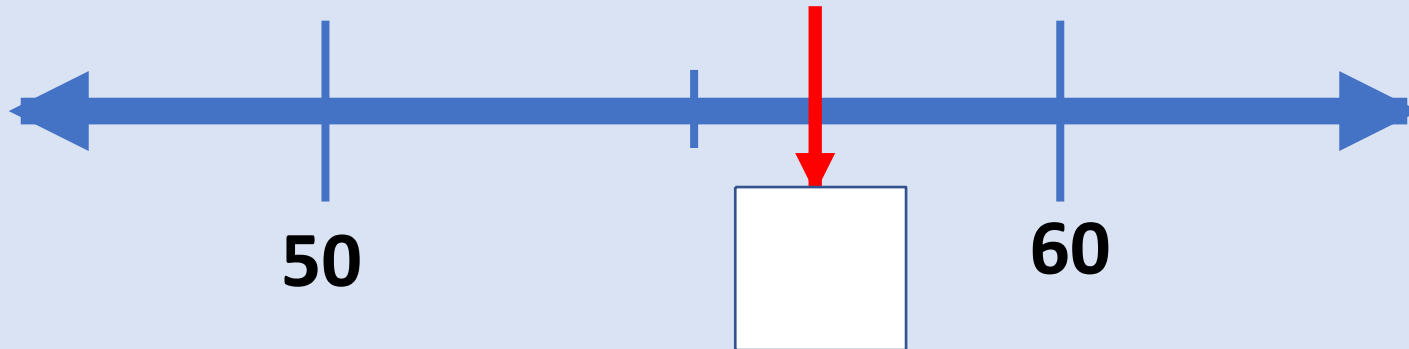
DEFINITELY NOT!

"The blank card on the number line is **definitely NOT** _____ because…"

50

60

OPEN NUMBER LINE

This task reinforces the idea of counter-examples. Students should clearly articulate WHY they believe it cannot be the number they are defending using their understanding of place value and numbers. Discuss several options. Accept all numbers offered, then encourage students to take greater risks.
For more Open Number Line Activities, visit http://www.MathSnack.blogspot.com

1.NBT.A.1
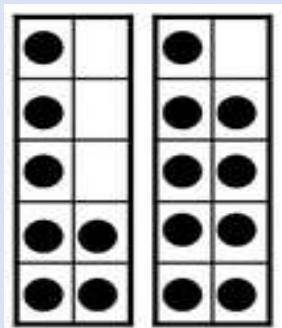
NUMBER TALK

TEACHER NOTES

BEFORE
The next slide has a string of double ten-frames that you will use for today's Number Talk. Use this slide in Smart Notebook format so you can easily use the pen to annotate. **Use the screen shade to show just one expression at a time.**

DURING
**Mentally add to make pairs of numbers that add up to 20**

- Model 1: 4 more needed to make 20 (students may see 3 + 1)
- Model 2: 18 more needed to make 20 (students may see 10 + 8)
- Model 3: 12 more needed to make 20 (students may see 5+5+2)

Remember, the most important part is the discussion and the opportunity for students to articulate their thinking. Students will come with a variety of strategies. During a Number Talk, the students explain their way of thinking. When students find ways that are especially efficient, highlight those strategies in the reflection that should follow the Talk. 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.
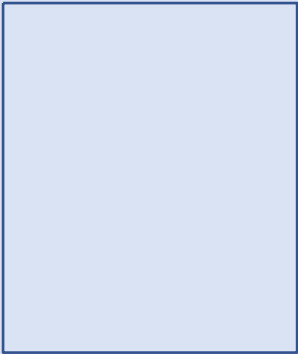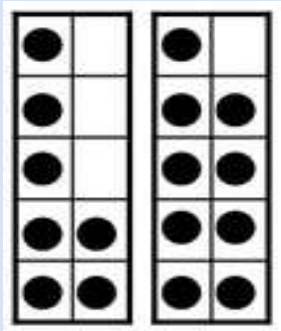
AFTER
Help students to recognize efficient strategies.
For this activity, students may have seen the empty spaces needed to fill two 10-frames needed to make 20. Other students may have used subtraction strategies.
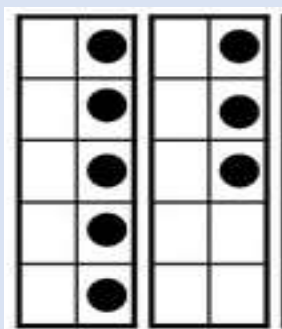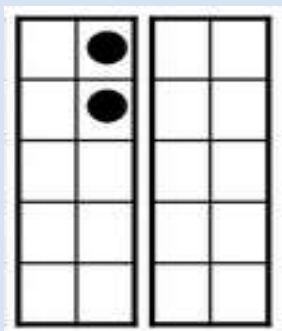
How many more to make 20?

Estimation Activity

When you are ready to use this activity,
use the PowerPoint platform so the slides work properly.

- This estimation activity involves SUBTRACTION of teen numbers.
- The first question asks, "What is the difference?" --- Help students to recognize that this is asking for the mathematical difference (when we subtract).
- Give students think time!
- Prompt students to discuss their ideas with their Numbered Heads/Elbow partners.
- Discuss students' ideas as a whole class. Student estimates should have a difference of 5.
- As students offer their ideas, ask,
    - "Does it seem reasonable that ____ gems are in the first glass?"
    - "Does it seem reasonable that ____ gems are in the second glass?"
    - "Is the difference between ____ and ____ 5?"
- After several ideas have been discussed, reveal the value in the first glass.
- Give students time to process the new information. Encourage them to change their estimate if needed.
- Discuss that we now KNOW how many are in the second glass. Give time for students to process.
- Ask, "How many must be in the second glass?"
    - Then follow up with, "How do you know?"
    - Then follow that up with the question, "How else could we know?"

ESTIMATION

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 <u>both</u> how they are the same <u>and</u> 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 <u>both</u>***. 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.
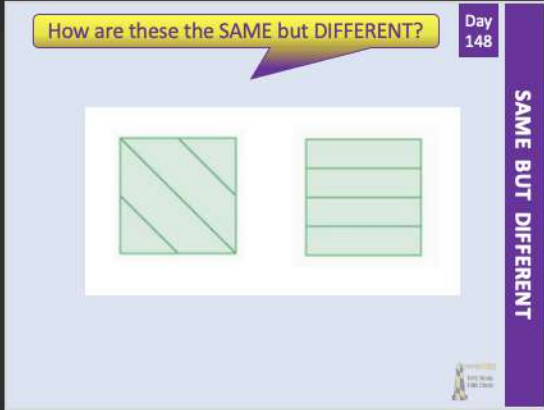
Use the NEXT SLIDE with students.

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"
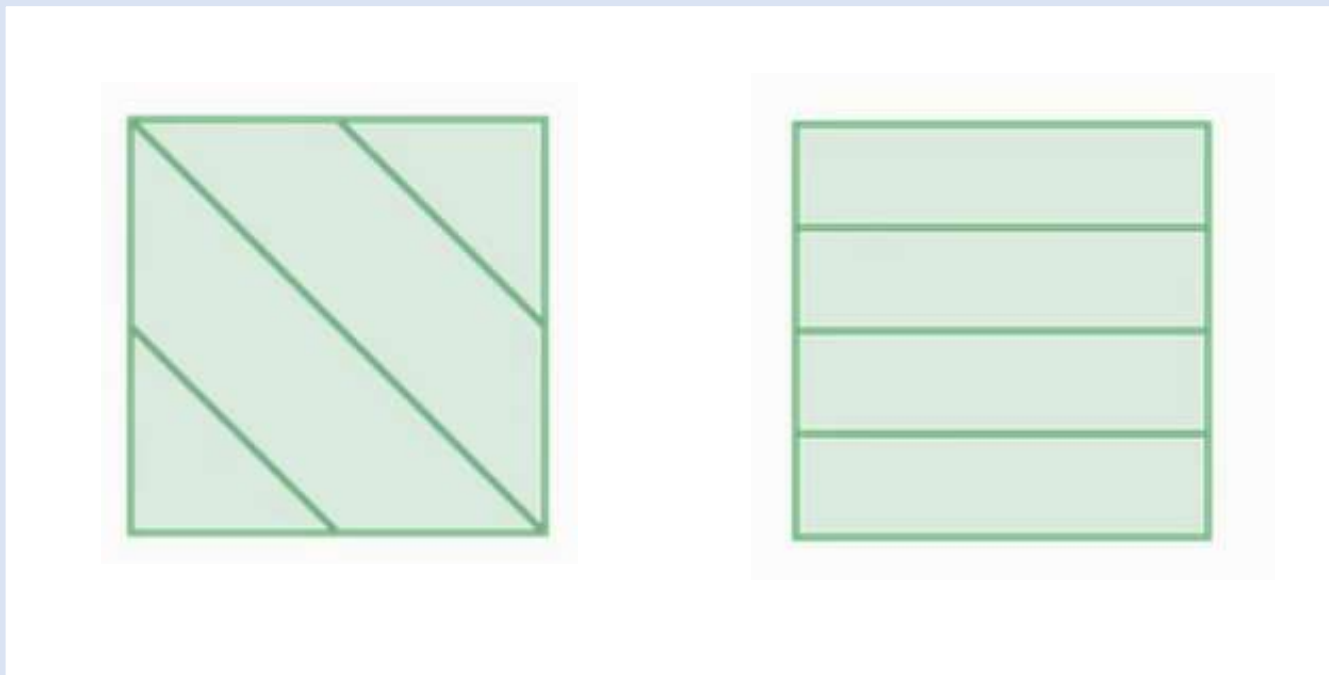- Some students may state a same/different relationship and say that they are the "same because…. But different because…."

SAME BUT DIFFERENT

How are these the SAME but DIFFERENT?

SAME BUT DIFFERENT

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.
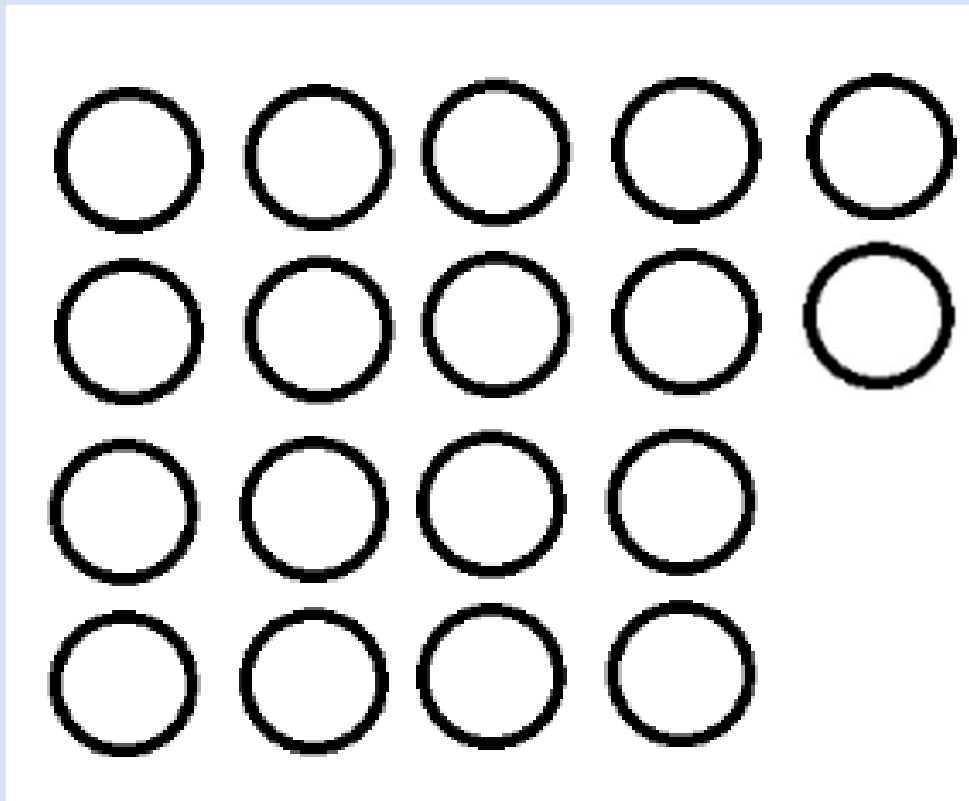10. End the routine by asking students to explain what was "mathematically important"
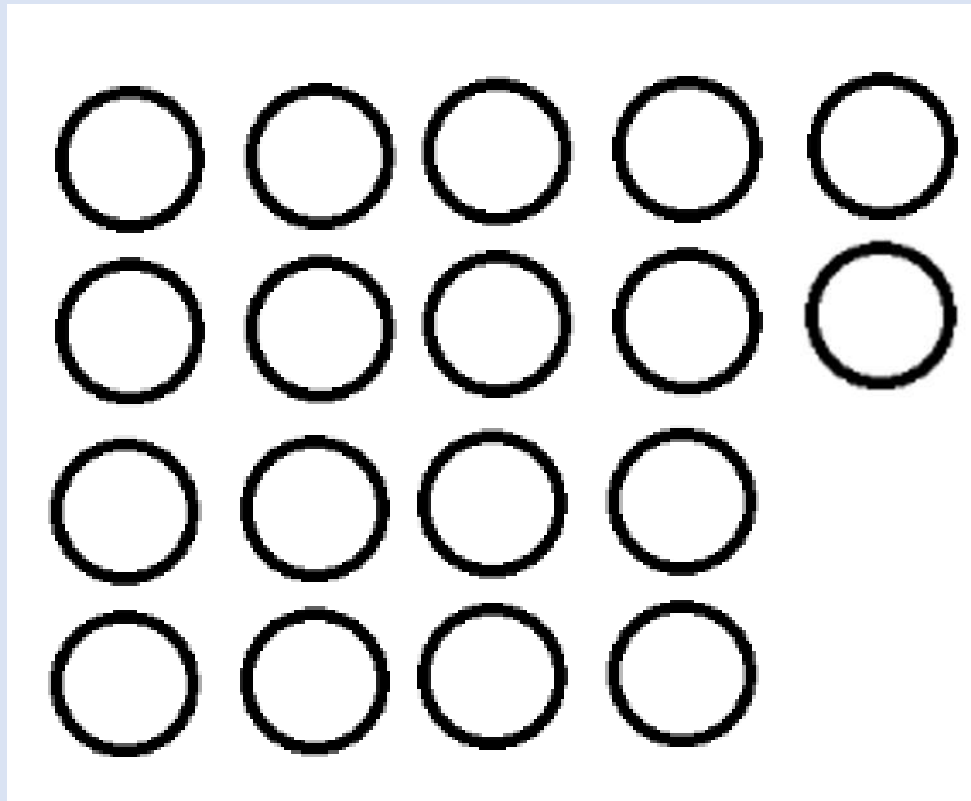
What do you NOTICE?
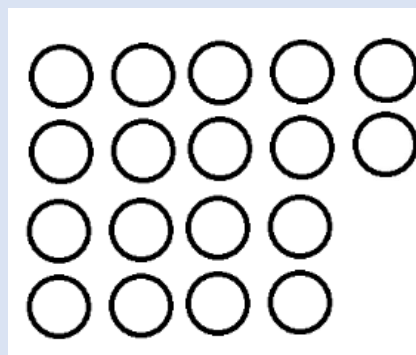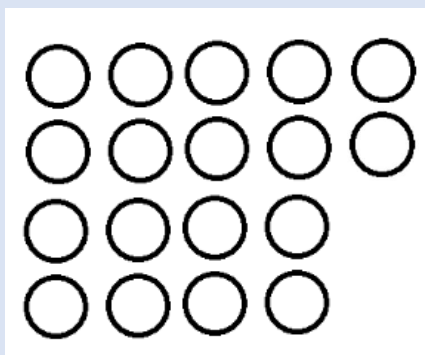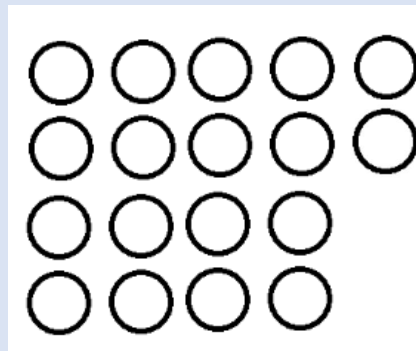
What did you NOTICE?

How many do you see?

What counting shortcut did you use?
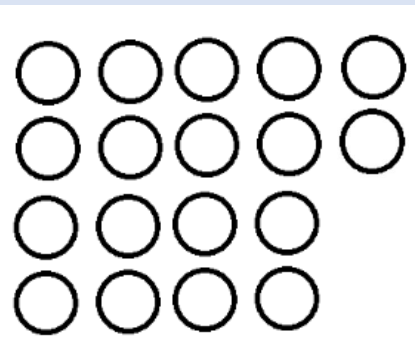
Reflect

What was mathematically important?

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the <u>CHECKLIST</u> 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 <u>decide</u> which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students <u>draft</u> 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 <u>defend</u> their reasoning with the whole group. Encourage active listening and <u>accountable talk</u>.

- **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

DECIDE & DEFEND

CALVERT COUNTY PUBLIC SCHOOLS

Use the NEXT SLIDES with students.

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

DECIDE & DEFEND

What question is being asked?
How can you begin building understanding?

Use Numbered Heads

READ to Understand

Decide

Draft

Defend

Reflect

DECIDE & DEFEND
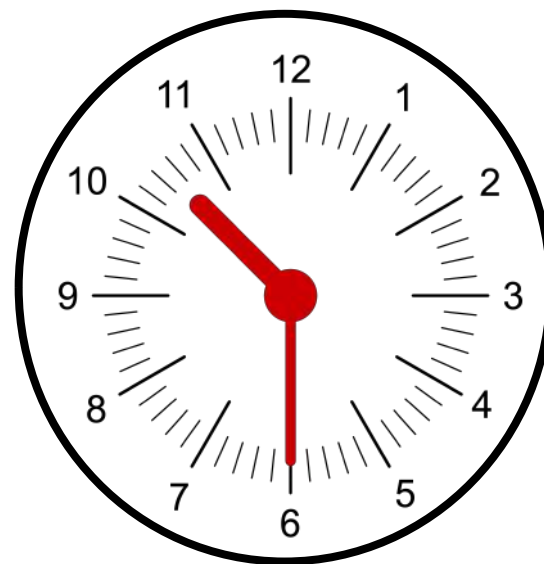
Kim is learning about telling time. He thinks the two clocks below show the same time. Is he correct? How do you know?

11:30

1.MD.B.3
1.R.2

Reflect on Learning

- A new math idea I learned today is…

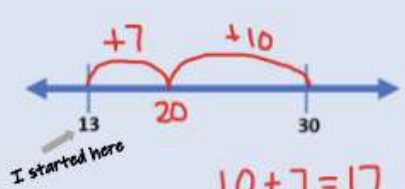- Next time I plan to… because….

DECIDE & DEFEND

Use the NEXT SLIDES with students.

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

Study Tia's work. How did Tia use the number line to help her solve **30 − 13** ?

Day 151

$+7$ $+10$

13 20 30

I started here

$10+7=17$
$30-13=17$

For more Open Number Line Activities, visit http://www.MathSnack.blogspot.com

OPEN NUMBER LINE

Tia used an addition fact to help her solve subtraction.
She knew that 13 + _____ = 30
She used the number line to determine the missing value.
She needed these addition facts: 13+7 = 20 and 20 + 10 = 30

For more Open Number Line Activities, visit http://www.MathSnack.blogspot.com

Study Tia's work. How did Tia use the number line to help her solve **30 − 13** ?

+7

+10

20

13

30

I started here

$$10 + 7 = 17$$
$$30 - 13 = 17$$

For more Open Number Line Activities, visit http://www.MathSnack.blogspot.com

1.OA.C.5
1.R.3

23 + 2
23 + 10
57 + 10
57 + 9

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
Using the 120 chart to add

Below are POSSIBLE responses. Students may add differently than shown. The goal is (1) for students to have a logical way to add numbers using the 120 chart or other strategy (2) to be able to articulate those strategies.

- 23 + 2 ---- begin on 23. This is a good opportunity to point out that we do not need to count up to 23, we can begin on 23 and then add on 2 by moving two places over to 25.
- 23 + 10 ---- if a student says that they counted by 1s to move from 23 to 33, accept that as a valid strategy. Encourage students to discuss other strategies and then highlight the response if a student notices that we can move down to add ten quickly on THIS chart since each row has 10. If no student notices, then do not mention at this time.
- 57 + 10 --- highlight the pattern that adding ten to 57 and adding ten to 23 BOTH resulted in the sum being the number directly UNDER the original starting number. **Encourage students to see this pattern.**
- 57 + 9 --- students may count one-by-one. **A more efficient strategy would be to notice that we can add ten and then subtract one by moving left one space. Be sure to discuss this way so students will use it next time.**

Remember, students will come with a variety of strategies. During a Number Talk, the students explain their way of thinking. When students find ways that are especially efficient, highlight those strategies in the reflection that should follow the Talk. 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
It is important that adding ten by moving down one space within a column does not simply become a procedure. Students must UNDERSTAND why this shortcut works. Counting the ten spaces one-by-one should not be discouraged as it helps to build this conceptual understanding. Help students to understand the pattern as they move from one-by-one counting to knowing how to add ten all at once through an understanding of place value.

23 + 2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

NUMBER TALK

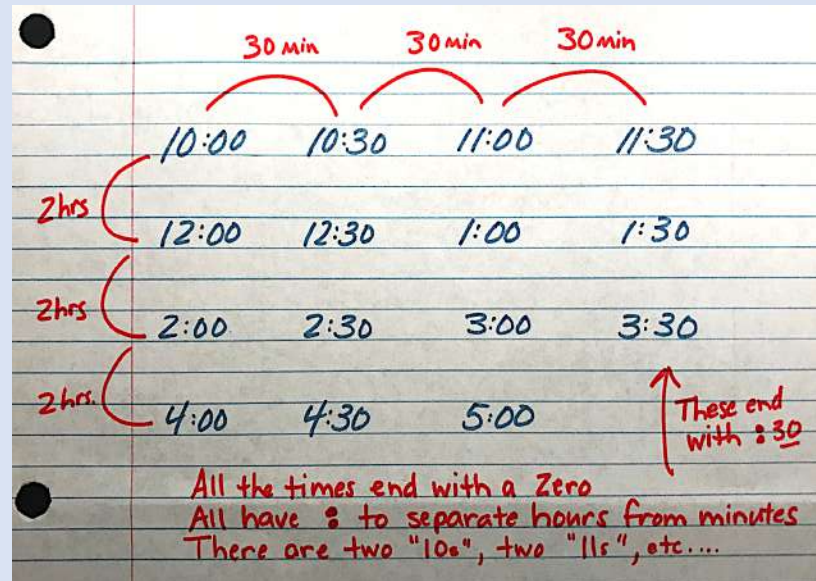1.NBT.C.4

Skip Counting Time by 30 Minutes

SAY: Today we will be skip counting by 30-minutes intervals.
If we begin on 10:00, what number should we say next? Remember, we are skip-counting by 30-minute intervals. (10:30)
Let's count all together. Let's count slowly so I can record the times on our chart.
After we finish counting, we will look for patterns in the time count we did together.
Chart the times on the next slide.
When discussing the patterns, be sure to discuss WHY those patterns occur.

TIME: 30-Minute Intervals

10:00   _____   _____   _____

_____   _____   _____   _____

_____   _____   _____   _____

_____   _____   _____   _____

CHORAL COUNTING

Use the NEXT SLIDES with students.

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

$5 + 4 + 5$

$9 + 6 + 1$

$4 + 6 + 6$

$7 + 7 + 2$

"Three of these number expressions...."

Possible Responses:

- Three of these number expressions equal 16. The expression in the orange box does not equal 16.
- Three of these number expressions have a doubles fact. The expression in the green box does not have a doubles fact.
- Three of these number expressions have the greater value written first in the expression. The expression in the purple box did not write the greatest value first.
- Three of these number expressions can use the Make a Ten strategy. The pink/red box does not have a Make A Ten fact.

5 + 4 + 5

9 + 6 + 1

4 + 6 + 6

7 + 7 + 2

"Three of these number expressions…."

An Interactive Open Number Line Task: **What is the Pattern?**

Prepare number cards that have a mathematical pattern. (ex. 13, 23, 33, 43, 53, 63, 73, 83)

Begin by giving selected students the number cards but do not tell them about the mathematical pattern.

➢ You want students to begin hearing the various numbers that were distributed to classmates to activate their thinking and to begin visualizing the placement of the cards on the number line. Call on a student who is holding one of the cards to read the value on his or her card.
➢ Tell the students that we are trying to find the beginning endpoint. Does anyone have a value that is less than _____? (say the number that the first students called out)
➢ Once you find the smallest value, use that as the beginning endpoint. Have the student place it to the left on the number line.
➢ Repeat this process to find who is holding the greatest value.
➢ Does anyone have a number that is greater than ___?
➢ Once the greatest value is discovered, have the student place it on the number line.
➢ Ask the remaining students to place their numbers where they belong on the number line – remind them to be mindful of appropriate distances from the neighboring numbers.
➢ With your students, adjust the spacing as needed – be sure to discuss this important aspect.
➢ Ask: What do you notice?
➢ Allow for every observation with the hope that someone will notice that the numbers are equally spaced in value which means that they should be equally spaced on the number line.

OPEN NUMBER LINE

8 + 5 + 5
3 + 9 + 7
4 + 8 + 6
7 + 1 + 9

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
Making Tens to Add 3 Numbers

Below are POSSIBLE responses. Students may add differently than shown. The goal is (1) for students to have an efficient strategy for adding 3 numbers (2) to be able to articulate those strategies

- 8 + 5 + 5 ---- 5+5 = 10 then 10 + 8 = 18
- 3 + 9 + 7 ---- 3 + 7 = 10 then 10 + 9 = 19
- 4 + 8 + 6 ---- 4 + 6 = 10 then 10 + 8 = 18
- 7 + 1 + 9 ---- 1 + 9 = 10 then 10 + 7 = 17

Remember, students will come with a variety of strategies. During a Number Talk, the students explain their way of thinking. When students find ways that are especially efficient, highlight those strategies in the reflection that should follow the Talk. 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 approaches. Highlight those that were efficient and accurate. Remember, the goal is
(1) for students to have an efficient strategy for adding 3 numbers
(2) to be able to articulate those strategies

NUMBER TALK

8 + 5 + 5
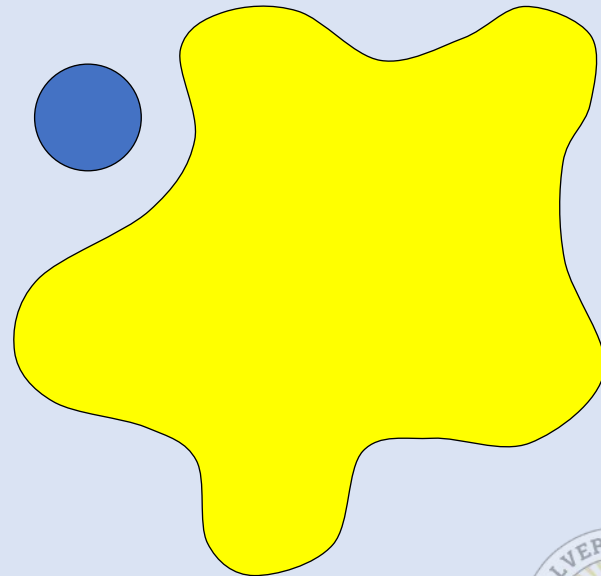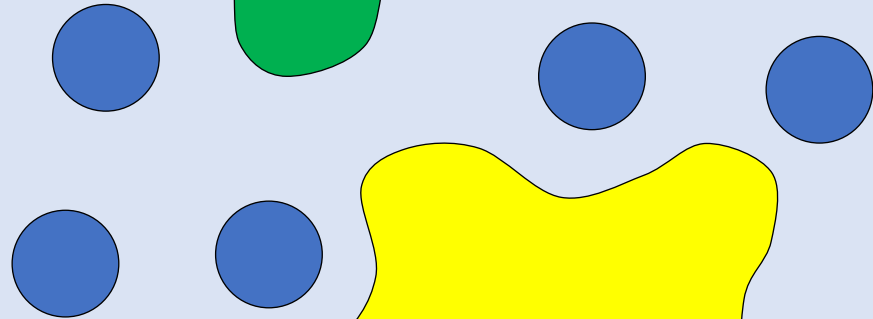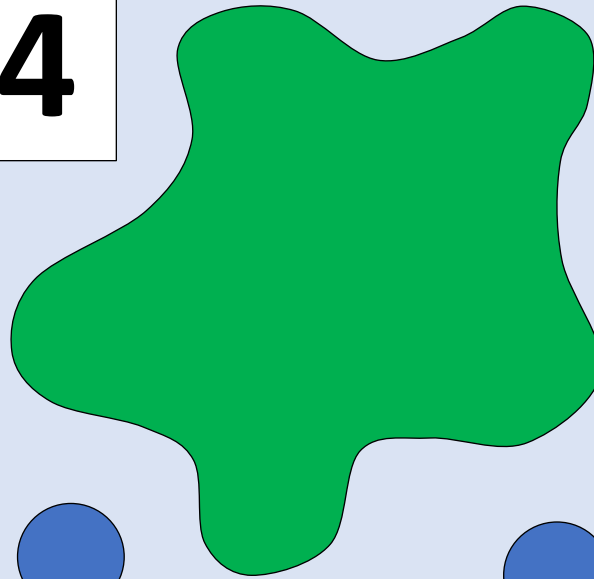
Esti-Mystery

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

What number do these Base Ten Blocks represent?

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.

Clue #1
The total is greater than 100

Clue #2
If you look carefully,
you can see all of the rods

Clue #3
Because they are stacked, you
may not be able to see
all of the unit cubes.
There are more than 20!

Clue #4
The total has a 3
in the ones places

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

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the <u>CHECKLIST</u> 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 <u>decide</u> which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students <u>draft</u> 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 <u>defend</u> their reasoning with the whole group. Encourage active listening and <u>accountable talk</u>.

- **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

DECIDE & DEFEND

Use the NEXT SLIDES with students.

Here is are some possible responses. This list is not all-inclusive. Additional ideas encouraged!
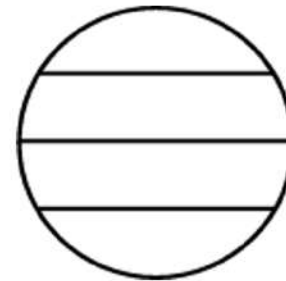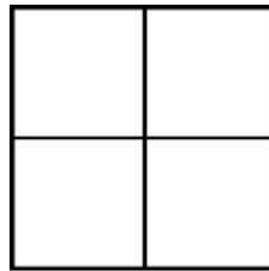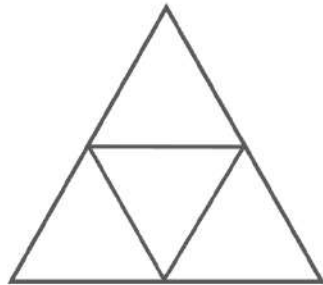
What question is being asked? How can you begin building understanding?

Mark said he partitioned all of the shapes into **quarters**. Is he correct? How do you know?

DECIDE & DEFEND

1.G.A.3

Reflect on Learning

- A new math idea I learned today is…

- Next time I interpret someone else's work, I will… *(ask myself, pay attention to,…)*

- To convince a skeptic, it's important to ….

DECIDE & DEFEND

CALVERT COUNTY PUBLIC SCHOOLS