



Core Knowledge[®] MATHEMATICS



Numbers 1-10

Student Workbook



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Numbers 1-10

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Numbers 1-10
Student Workbook
Core Knowledge Mathematics™

Lesson 1: Fingers as a Math Tool

- Let's show numbers with our fingers.

1.2: Show Some Fingers

1

3

5

4

6

8

10

9

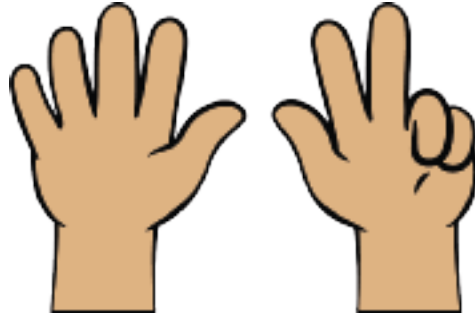
2

7

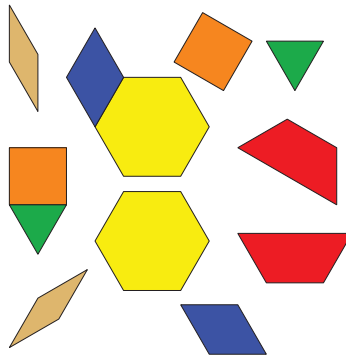
1.3: Introduce Math Fingers, Show and Say

Choose a center.

Math Fingers



Pattern Blocks



Picture Books



Lesson 2: Count and Arrange

- Let's figure out how many objects we have.

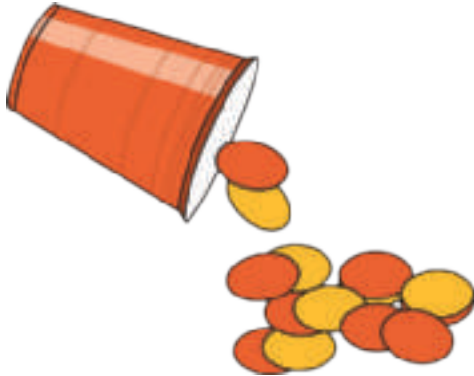
2.1: Count, Rearrange, Count

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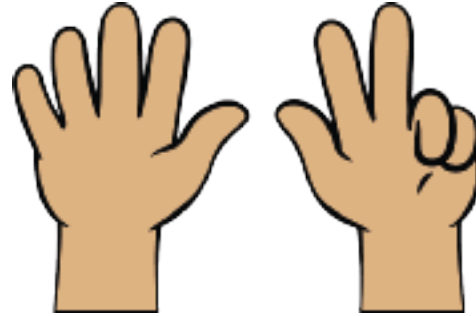
2.3: Centers: Choice Time

Choose a center.

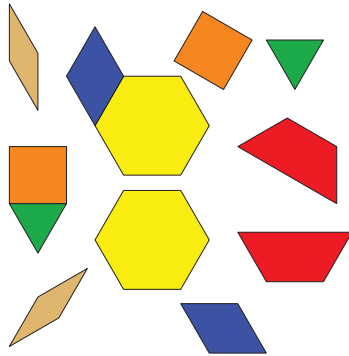
Shake and Spill



Math Fingers



Pattern Blocks



Picture Books



Lesson 3: Groups that Look Very Different

- Let's figure out if there are more green triangles or more orange squares.

3.3: Introduce Number Race, Numbers 1-10

Choose a center.

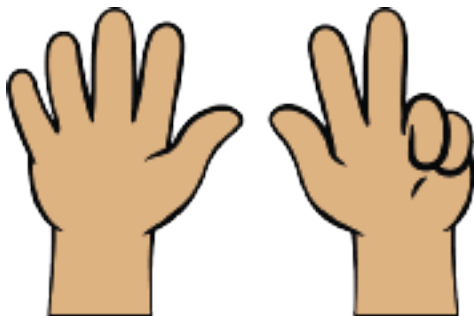
Number Race



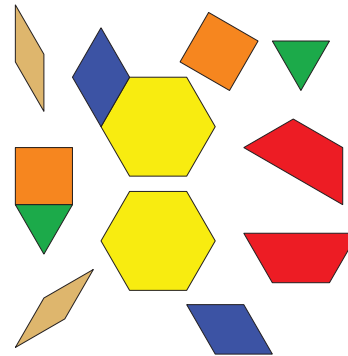
Shake and Spill



Math Fingers



Pattern Blocks



Picture Books



Lesson 4: Groups that Look Alike

- Let's find groups that have more, fewer, or the same number.

4.1: Which Has More?

Priya and her family are sitting down at the table for dinner.

There are 4 people sitting at the table.

There are 6 spoons.

Are there enough spoons for each person to get one?



4.3: Centers: Choice Time

Choose a center.

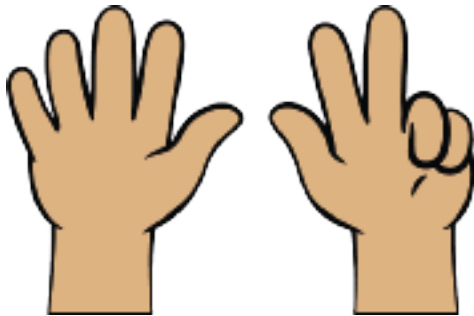
Number Race



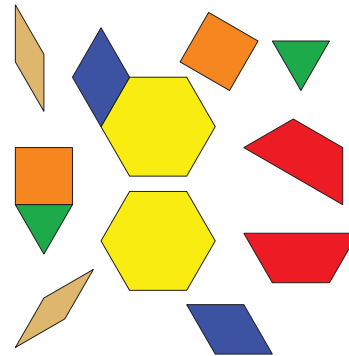
Shake and Spill



Math Fingers



Pattern Blocks



Picture Books



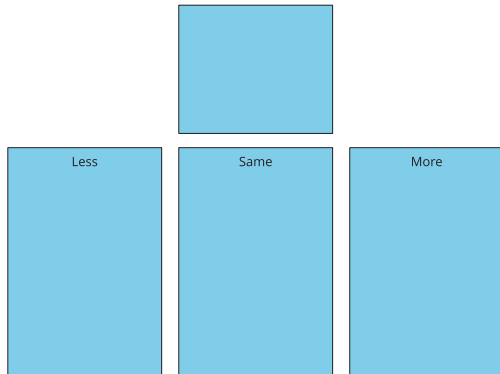
Lesson 5: Make Groups of More, Fewer, or the Same

- Let's make groups of objects that have more, fewer, or the same number of objects as another group.

5.3: Center: Choice Time

Choose a center.

Less, Same, More



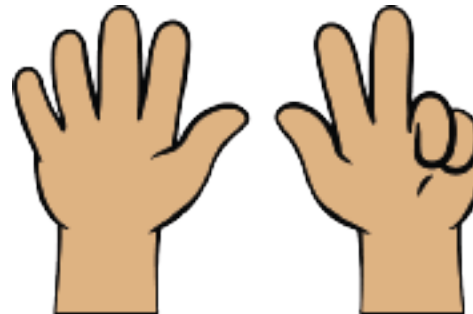
Shake and Spill



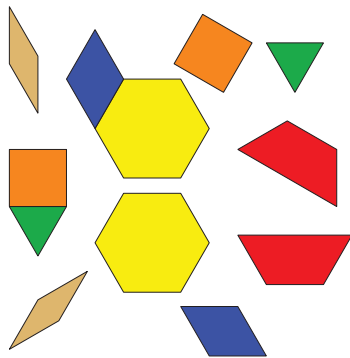
Number Race



Math Fingers



Pattern Blocks



Picture Books



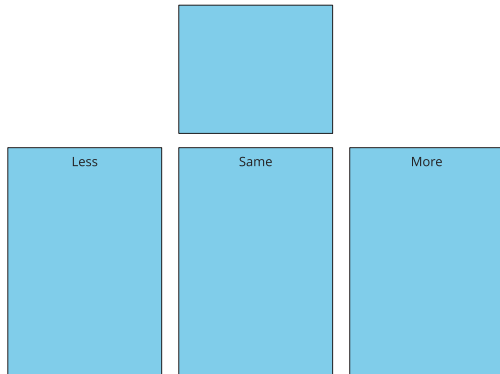
Lesson 6: Use More, Fewer, or the Same Number to Describe Groups

- Let's use "more", "fewer", and "the same number" to describe groups.

6.3: Centers: Choice Time

Choose a center.

Less, Same, More



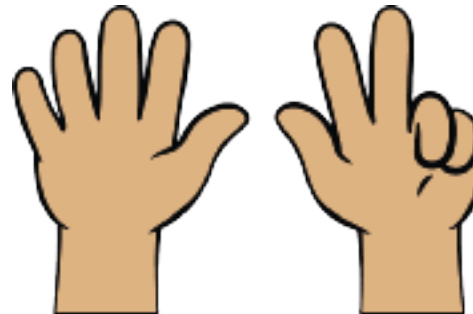
Shake and Spill



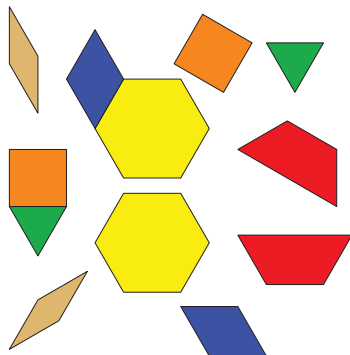
Number Race



Math Fingers



Pattern Blocks



Picture Books

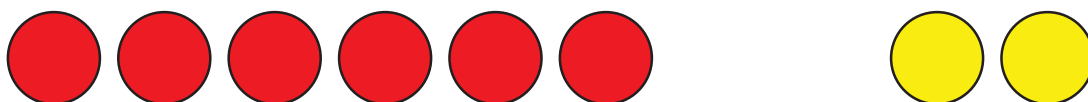


Section Summary

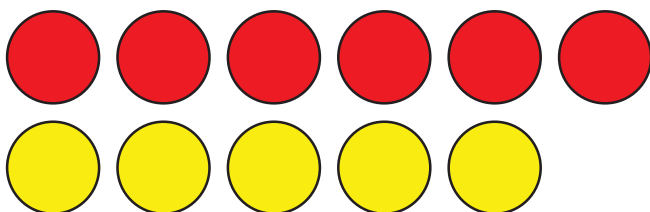
Section Summary

In this section, we counted many groups of objects. We also figured out which groups had more objects and which groups had fewer objects.

Sometimes we could tell, just by looking, that there were more red counters than yellow counters.



Sometimes we lined up and matched the objects to see if there were fewer red counters or yellow counters.



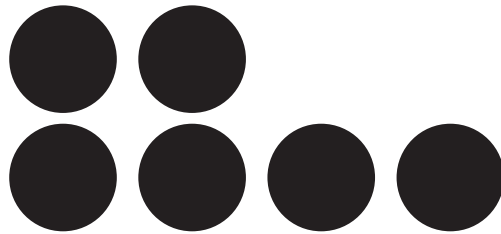
There are fewer yellow counters than red counters.

Lesson 7: Count Images in Different Arrangements

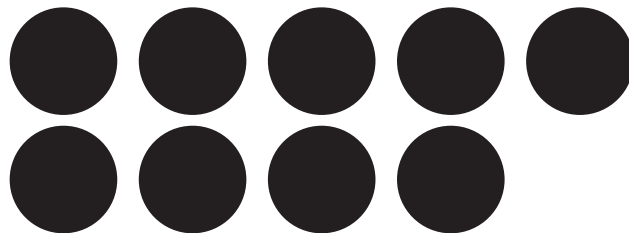
- Let's figure out how many images there are.

7.2: Count Images

1.



2.



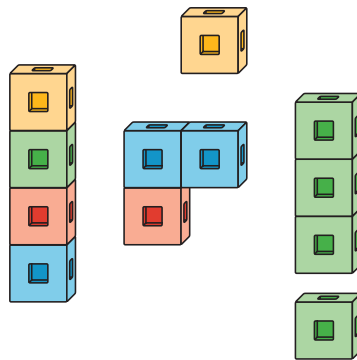
7.3: Introduce Math Stories, How Many?

Choose a center.

Math Stories



Connecting Cubes



Number Race



Lesson 8: Compare Matching Images

- Let's figure out what we have more and fewer of.

8.1: Are There Enough?



1.



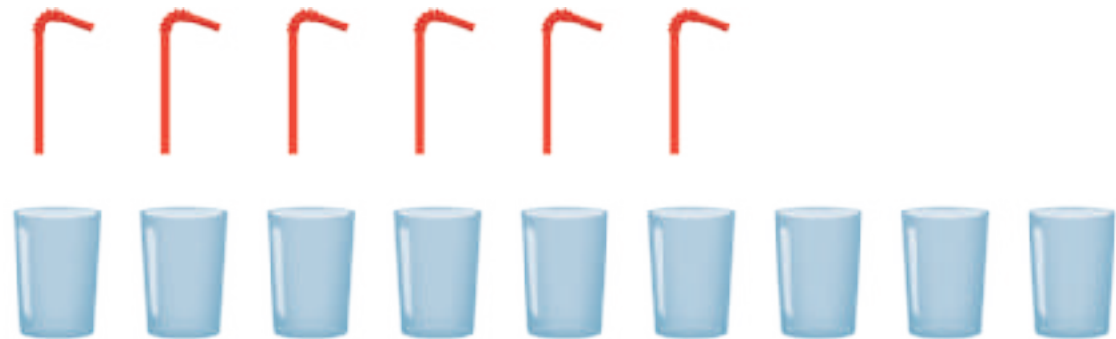
2.



3.



4.

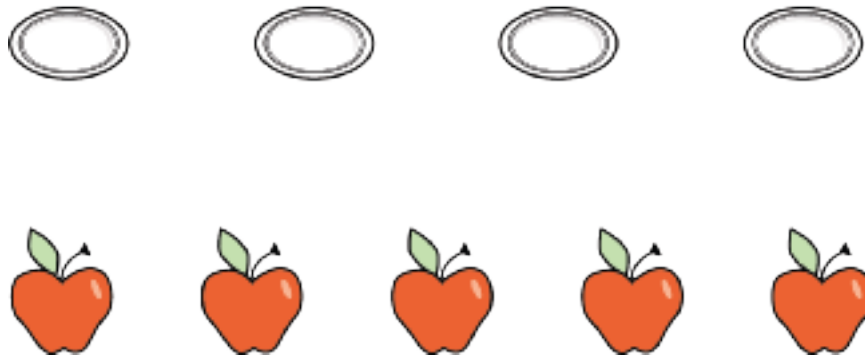


8.2: Comparing Images That Aren't Matched

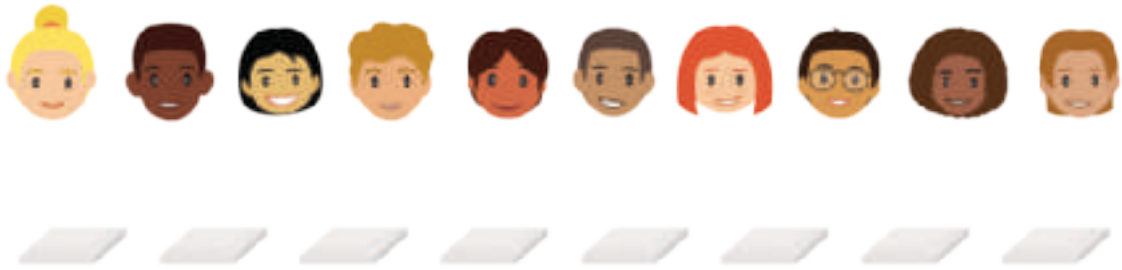
1.



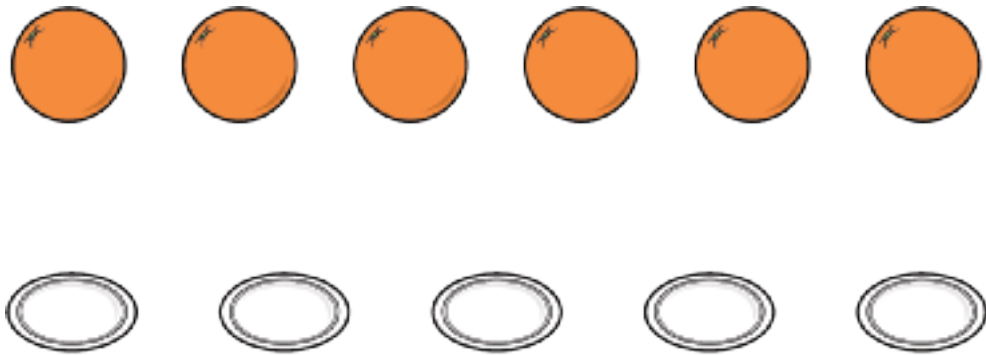
2.



3.



4.



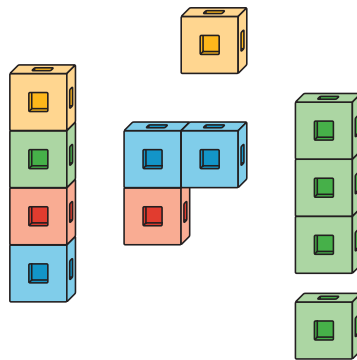
8.3: Centers: Choice Time

Choose a center.

Math Stories



Connecting Cubes



Number Race



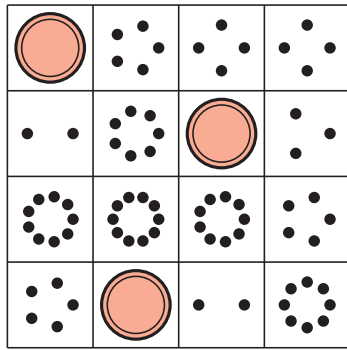
Lesson 9: More, Fewer, or the Same

- Let's figure out if there are more, fewer, or the same number of images.

9.3: Introduce Bingo, Images

Choose a center.

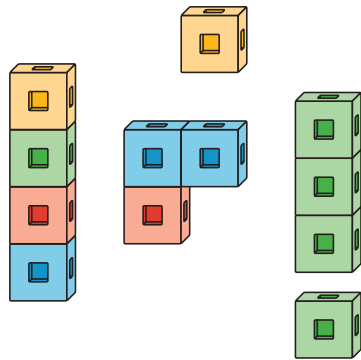
Bingo



Math Stories



Connecting Cubes



Number Race

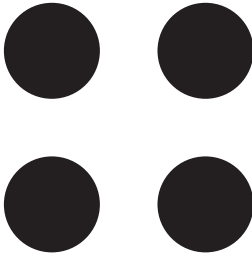


Lesson 10: Find More or Fewer

- Let's compare groups of images using the words "more," "fewer," or "the same number."

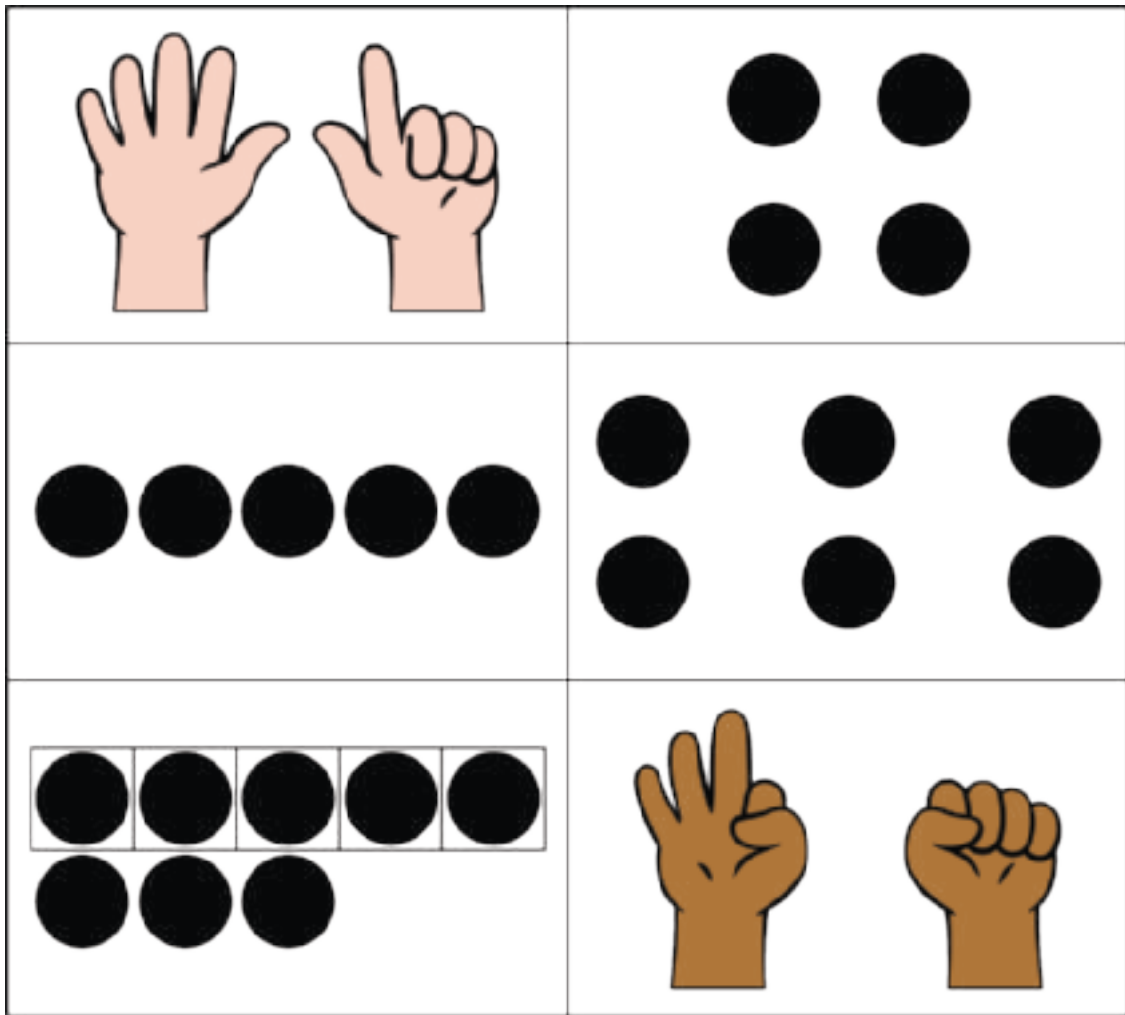
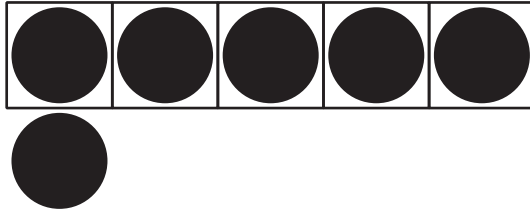
10.1: Circle More, Circle Fewer

1.



A horizontal row of five black circles inside a rectangular box. Below the box, there is one additional black circle.	Three black circles are arranged in a diagonal line from the top-left to the bottom-right.
Five black circles are arranged in a pentagonal pattern.	Two brown hands are shown. The left hand is open with all five fingers spread. The right hand is a closed fist.
Two hands are shown. The left hand is open with three fingers spread. The right hand is a closed fist.	A horizontal row of five rectangular boxes. The first two boxes contain a black circle each. The remaining three boxes are empty.

2.



10.2: Introduce Less, Same, More, Images

Fewer

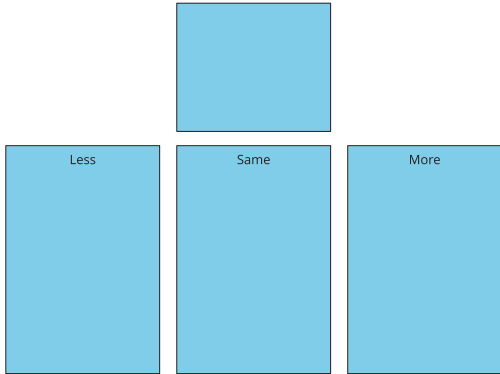
Same

More

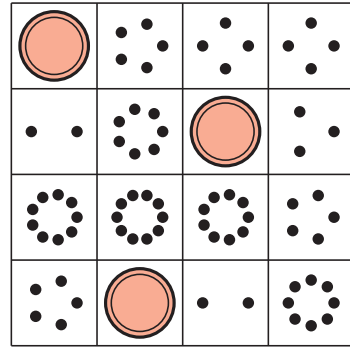
10.3: Centers: Choice Time

Choose a center.

Less, Same, More



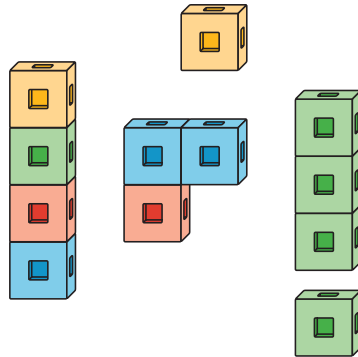
Bingo



Math Stories



Connecting Cubes



Number Race



Lesson 11: Create Groups of Images

- Let's make groups that have more, fewer, or the same number of images.

11.1: Draw Groups of Images

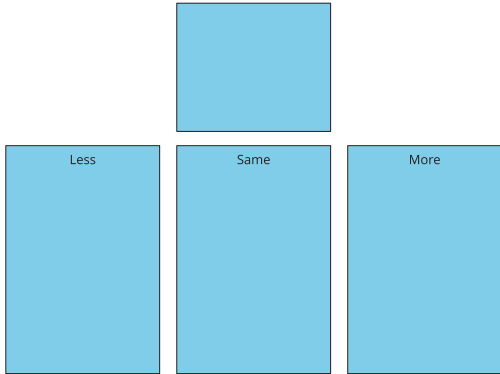
my group	my partner's group

my group	my partner's group

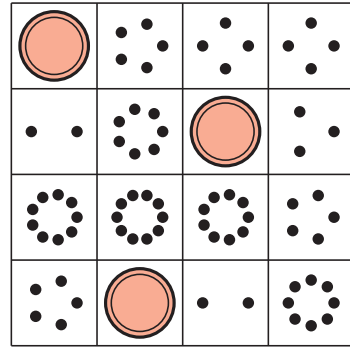
11.3: Centers: Choice Time

Choose a center.

Less, Same, More



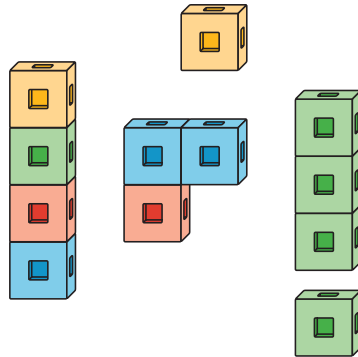
Bingo



Math Stories



Connecting Cubes



Number Race



Section Summary

Section Summary

In this section, we counted many different groups of things. We kept track of which ones we counted to make sure that we only counted each thing one time.

We also compared the number of things in groups using “more”, “fewer”, and “the same number.”

Sometimes we could just see that there were more.



There are more cups than straws.

Sometimes we had to match or count to figure out which group had fewer.



6 dots is fewer than 7 dots.

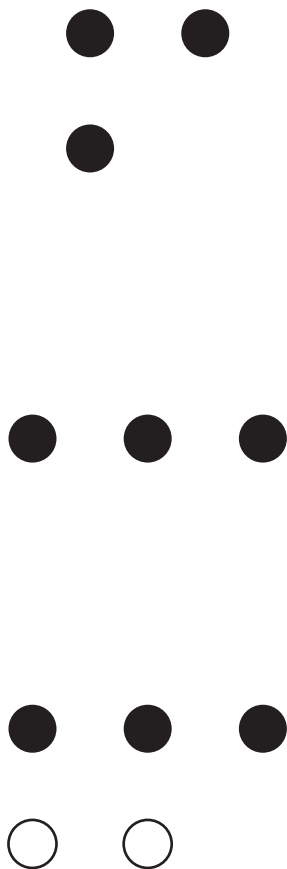
Lesson 12: Connect Quantities and Numbers

- Let's figure out which groups of objects go with which numbers.

Warm-up: How Many Do You See: Image Flash

How many do you see?

How do you see them?



12.2: Counting Stations

number of objects	bag name
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

12.3: Revisit Number Race, Numbers 1-10

Choose a center.

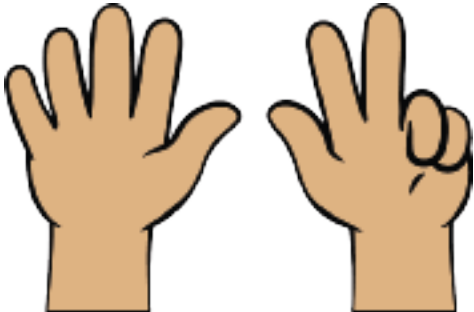
Number Race



Geoblocks



Math Fingers



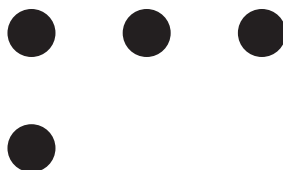
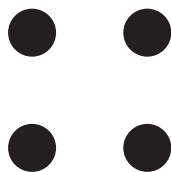
Lesson 13: Numbers in Many Ways

- Let's figure out how many things there are.

Warm-up: How Many Do You See: Different Arrangements of 4

How many do you see?

How do you see them?



13.1: Matching Groups of Images and Numbers

4

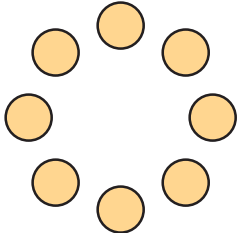
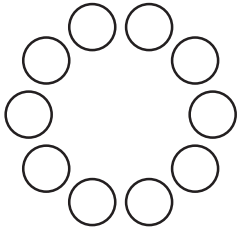
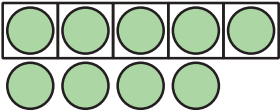
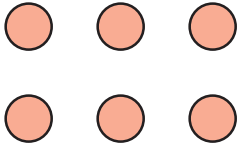
10

7

8

6

9



13.3: Centers: Choice Time

Choose a center.

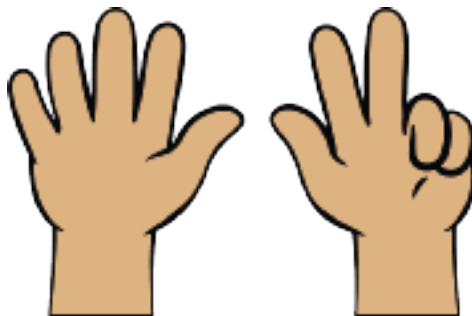
Number Race



Geoblocks



Math Fingers



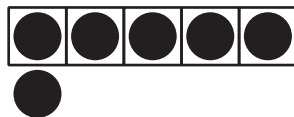
Lesson 14: Count Out Objects

- Let's figure out how many toppings we need to put on our pizza.

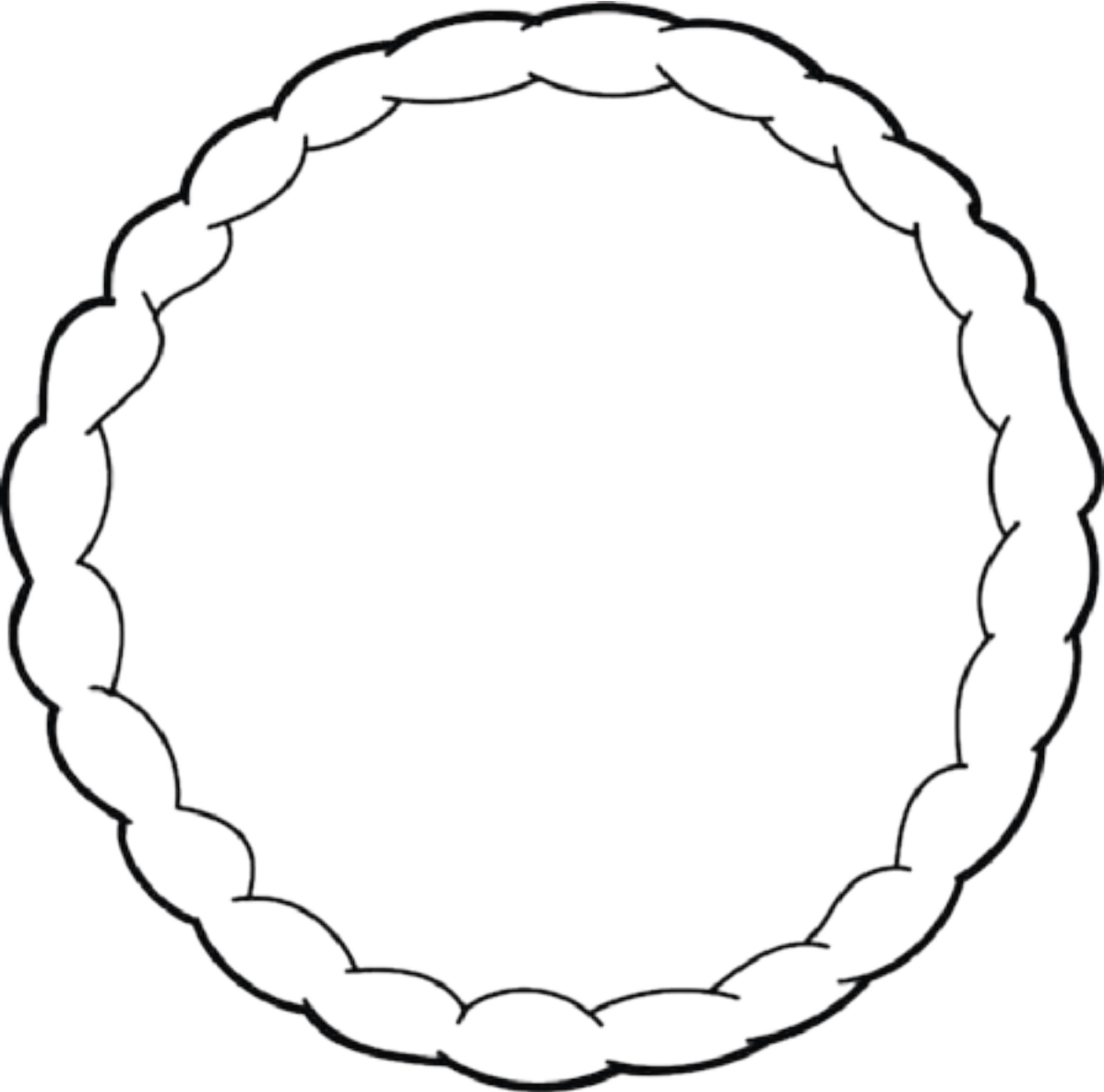
Warm-up: How Many Do You See: 5-frames and Fingers

How many do you see?

How do you see them?



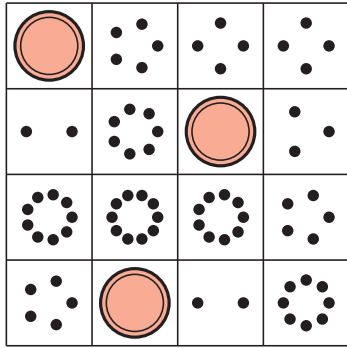
14.1: Toppings on Pizza



14.3: Introduce Bingo, Images and Numbers

Choose a center.

Bingo



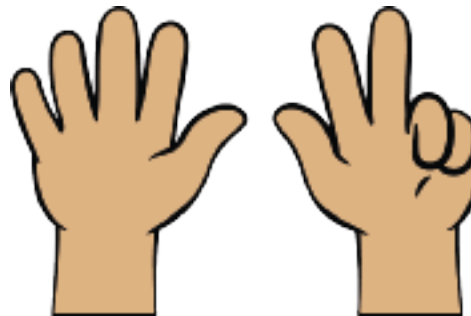
Number Race



Geoblocks



Math Fingers

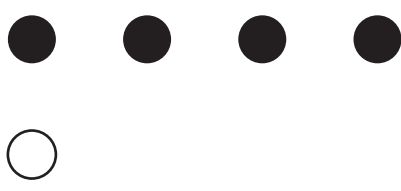
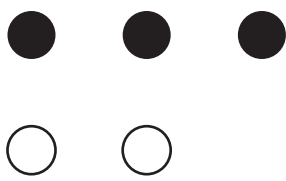


Lesson 15: Draw Groups of Things

- Let's figure out how many things to draw.

Warm-up: How Many Do You See: Many Ways to Show 5

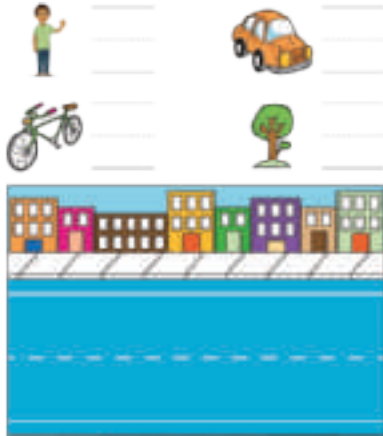
How many do you see?
How do you see them?



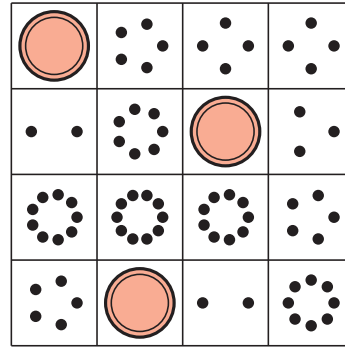
15.3: Centers: Choice Time

Choose a center.

Math Libs



Bingo



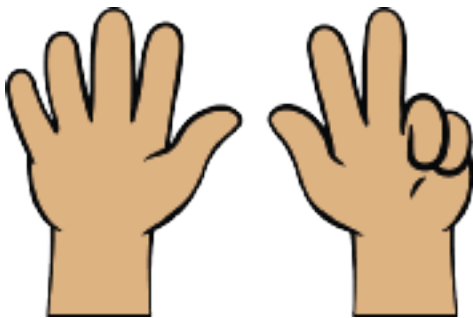
Number Race



Geoblocks



Math Fingers



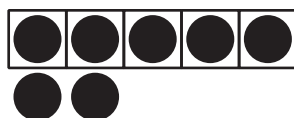
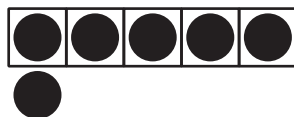
Lesson 16: Write Numbers to Represent Quantities

- Let's write numbers to show how many there are.

Warm-up: How Many Do You See: One More with a 5-frame

How many do you see?

How do you see them?



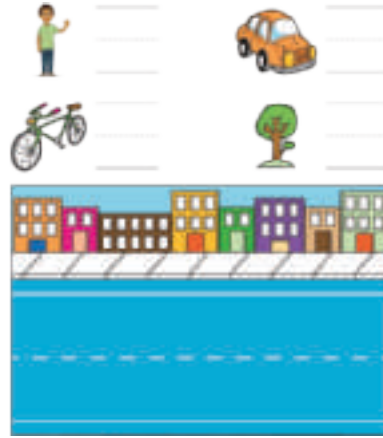
16.3: Centers: Choice Time

Choose a center.

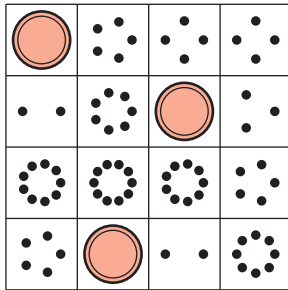
Math Stories



Math Libs



Bingo



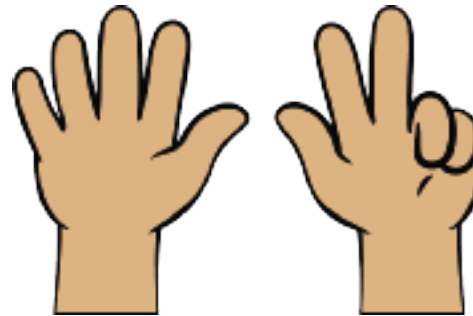
Number Race



Geoblocks



Math Fingers

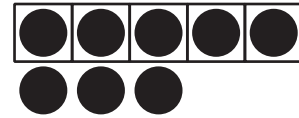
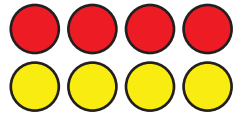


Section Summary

Section Summary

In this section, we matched numbers with groups of things.

8

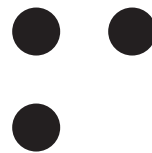


We also counted out objects and drew pictures to show numbers.

5



We wrote numbers to show how many things there are.



3

Lesson 17: Order Towers and Numbers

- Let's put numbers and cube towers in order from 1–10.

Warm-up: Act It Out: Family Dinner

Han is helping his grandfather set the table for dinner.

Han puts 8 plates on the table.

17.3: Centers: Choice Time

Choose a center.

Math Stories



Math Libs



Number Race



Lesson 18: 1 More or 1 Less with Towers and Numbers

- Let's find 1 more or 1 less than a number.

Warm-up: Act It Out: Forks for Dinner

Mai is helping hand out the forks for dinner.

There are 9 people sitting at the table.

Mai has 7 forks.

Are there enough forks for each person to get one?

18.2: One Less, One More

my tower

my partner's tower

my tower

my partner's tower

my tower

my partner's tower

my tower

my partner's tower

18.3: Centers: Choice Time

Choose a center.

Math Stories



Math Libs



Number Race



Lesson 19: Compare Numbers and Images

- Let's figure out which number is more.

Warm-up: Act It Out: Pass Out Snacks

Diego is passing out snacks to the students at his table.

He has 5 apples.

His teacher gives him 1 more apple.

How many apples does Diego have now?



19.1: Which Has More?

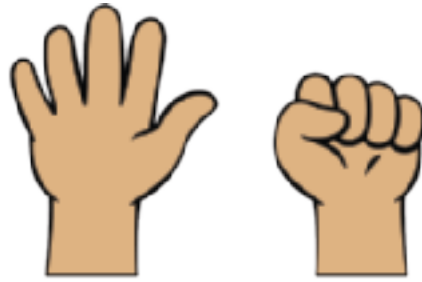
1.



2.



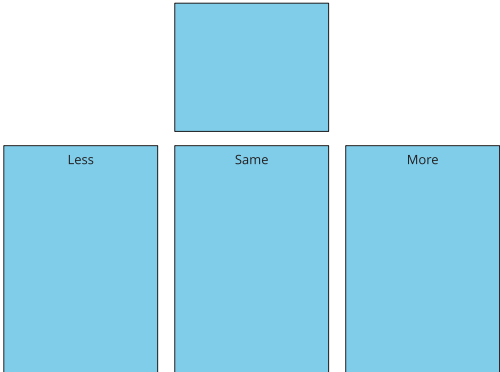
3.



19.3: Centers: Choice Time

Choose a center.

Less, Same, More



Math Libs



Number Race



Lesson 20: Represent and Compare Numbers

- Let's show numbers in different ways and make comparison statements.

Warm-up: Act It Out: Plates and Cups for Dinner

Lin and her brother are setting the table for dinner.

Lin put 8 cups on the table.

Her brother put 6 plates on the table.

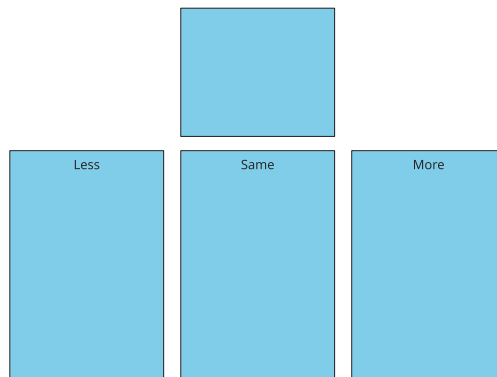
Did Lin or her brother put more things on the table?



20.3: Centers: Choice Time

Choose a center.

Less, Same, More



Math Libs



Number Race



Lesson 21: Compare Numbers

- Let's figure out which number is more and which is less.

Warm-up: Act It Out: Hand Out Milk

Tyler is handing out the drinks to his class.

9 students chose milk.

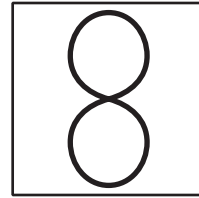
5 students chose water.

Did fewer students choose milk or water?

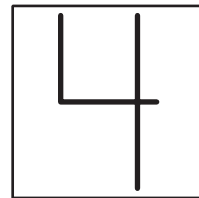
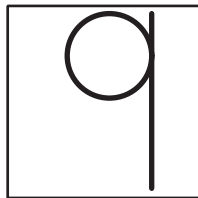
21.1: Which Number is More?

Circle the number that is more.

1.



2.



21.2: Which Number is Less?

Write the numbers you roll.

Circle the number that is less.

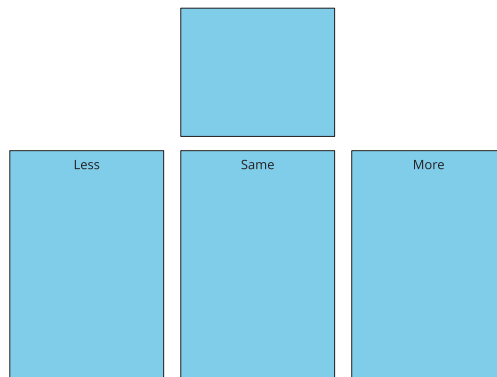
_____	_____
-----	-----
_____	_____
_____	_____
-----	-----
_____	_____
_____	_____
-----	-----
_____	_____

Write the numbers you roll.
Circle the number that is less.

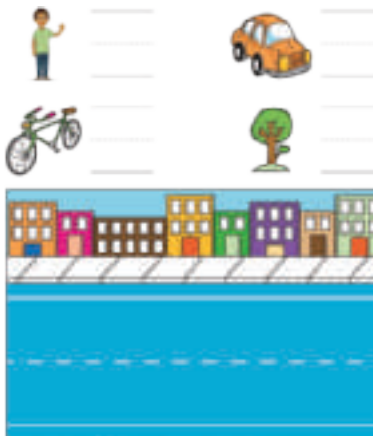
21.3: Centers: Choice Time

Choose a center.

Less, Same, More



Math Libs



Number Race



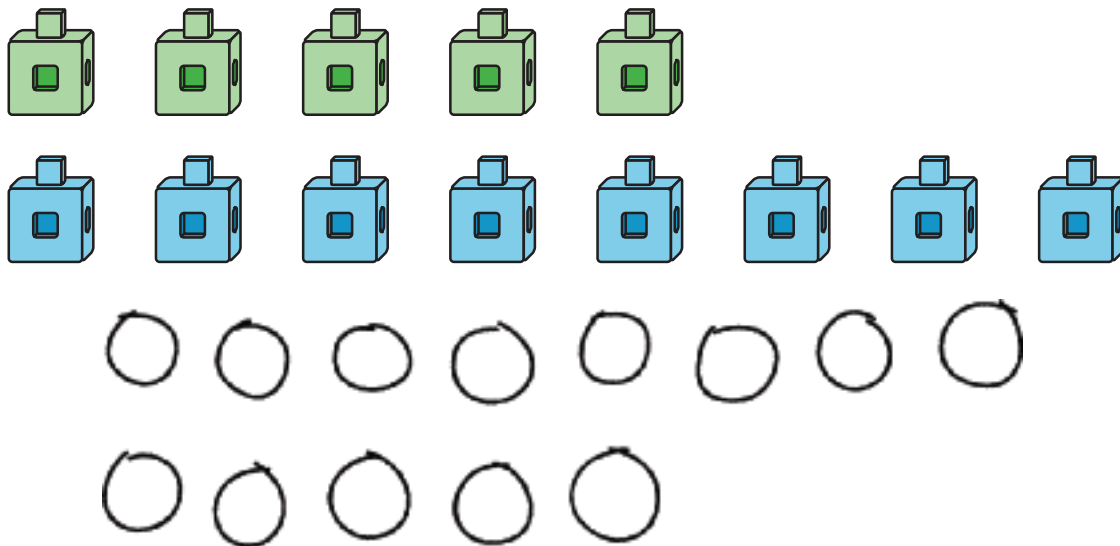
Section Summary

Section Summary

In this section we compared numbers. We used objects and drawings to help us figure out which number is more and which is less.

5

8



We also learned that we can use what we know about counting to compare the numbers.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

5 comes before 8 when we count.

5 is less than 8.

8 is more than 5.

Lesson 22: The Pizzeria

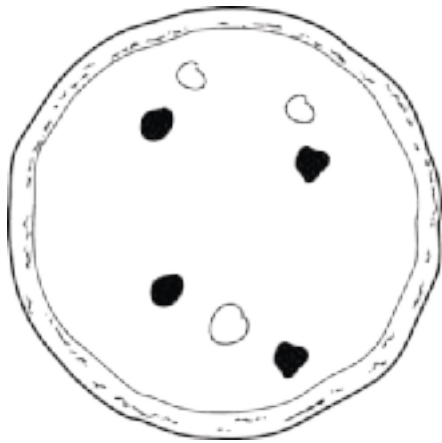
- Let's count pizza toppings.

Warm-up: Notice and Wonder: Pizza Toppings

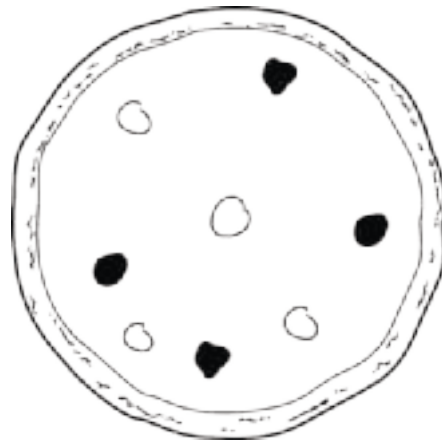
What do you notice?

What do you wonder?

Jada's Pizza



Diego's Pizza



22.1: Class Pizza Order

Pepperoni



.....

Sausage



.....

Olive



.....

Bell Pepper

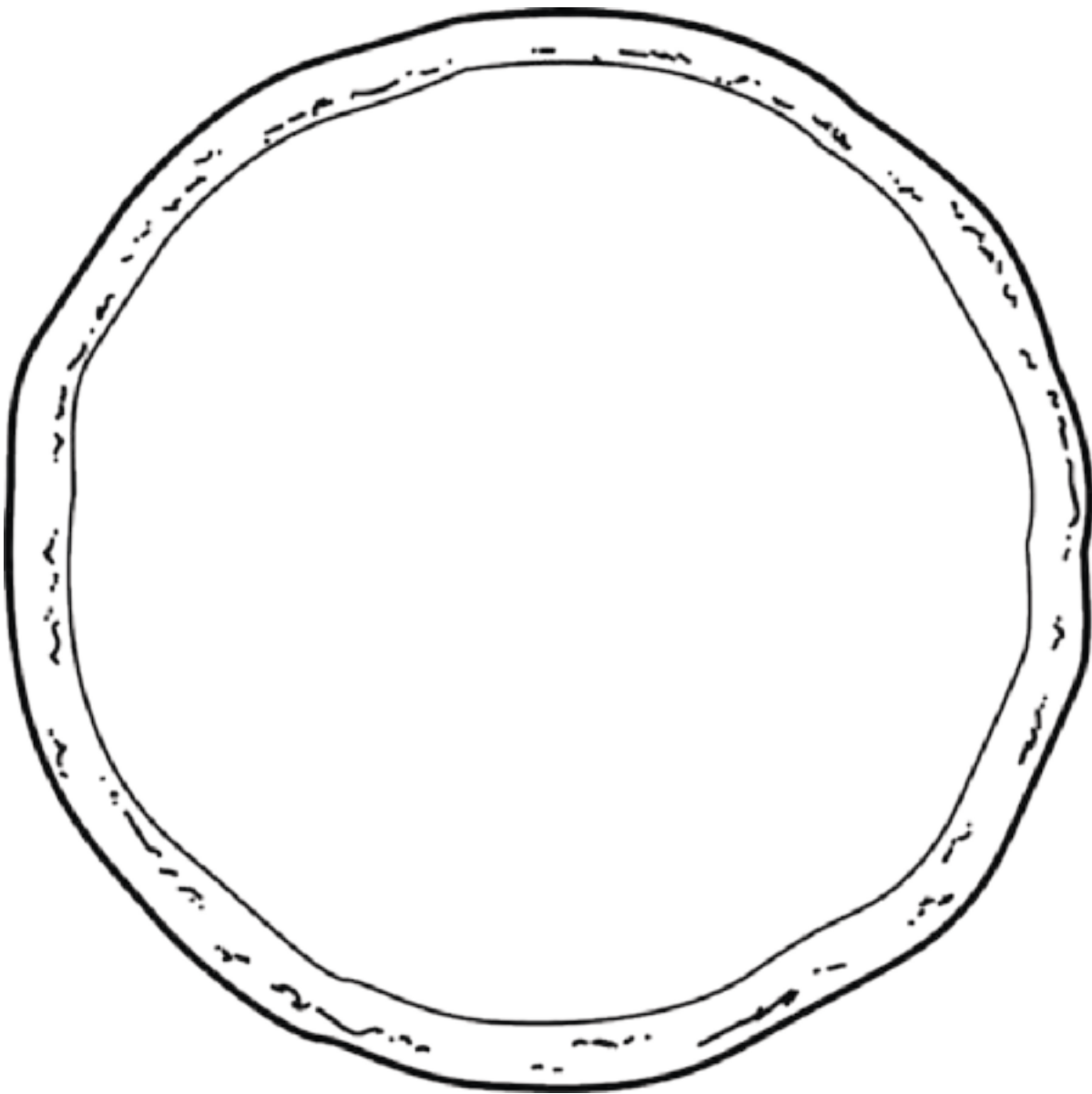


.....

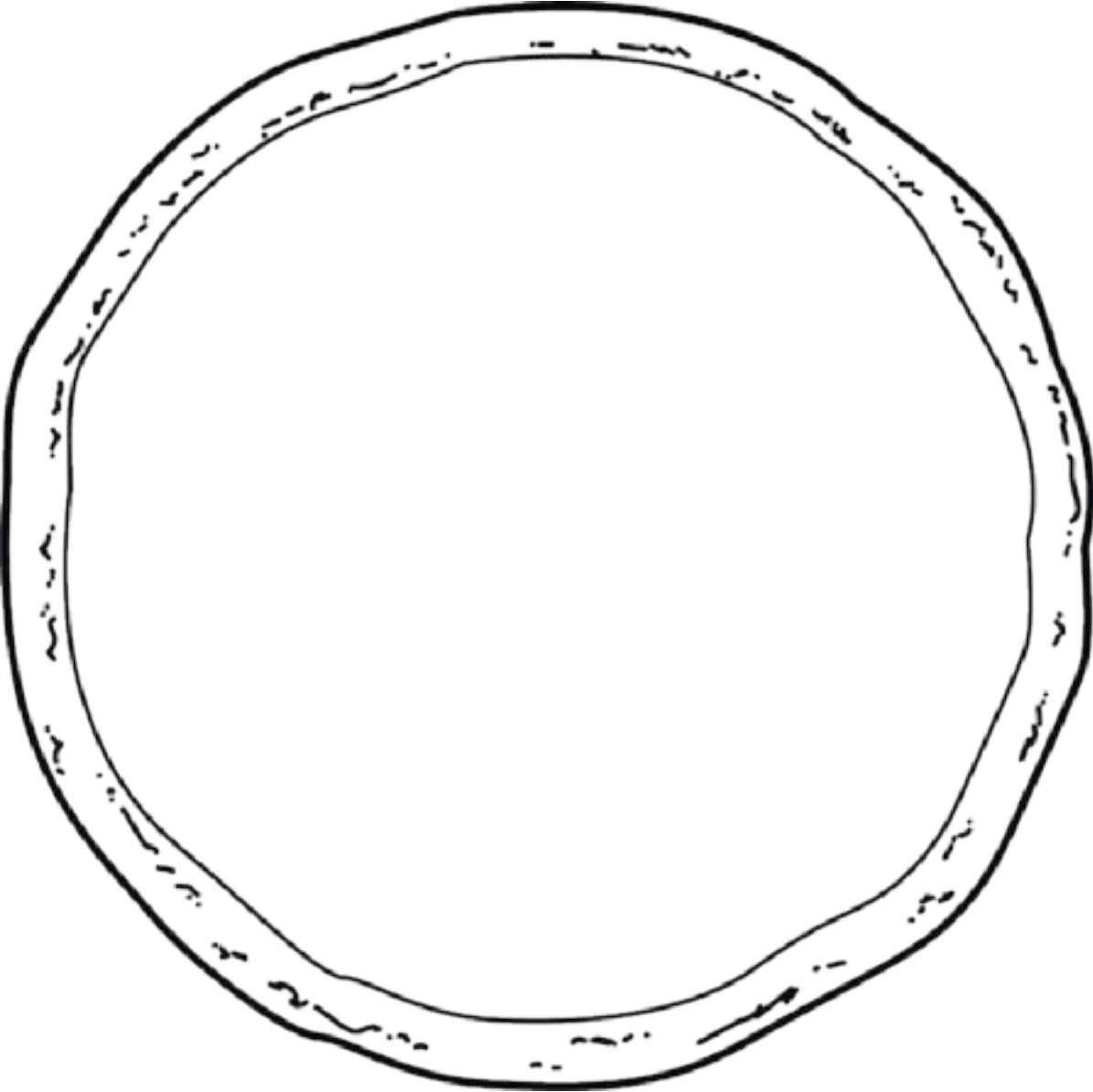
Pineapple

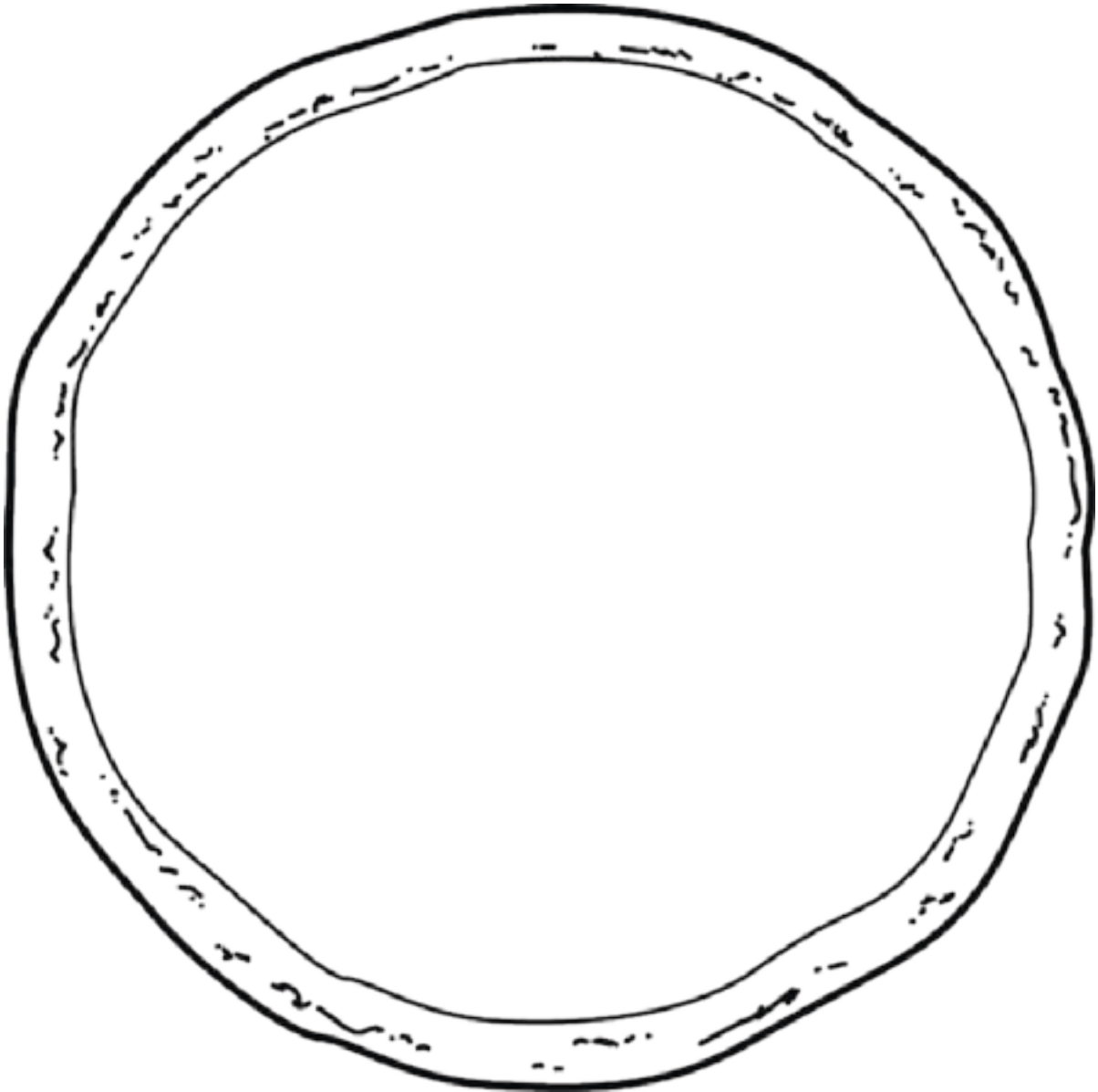


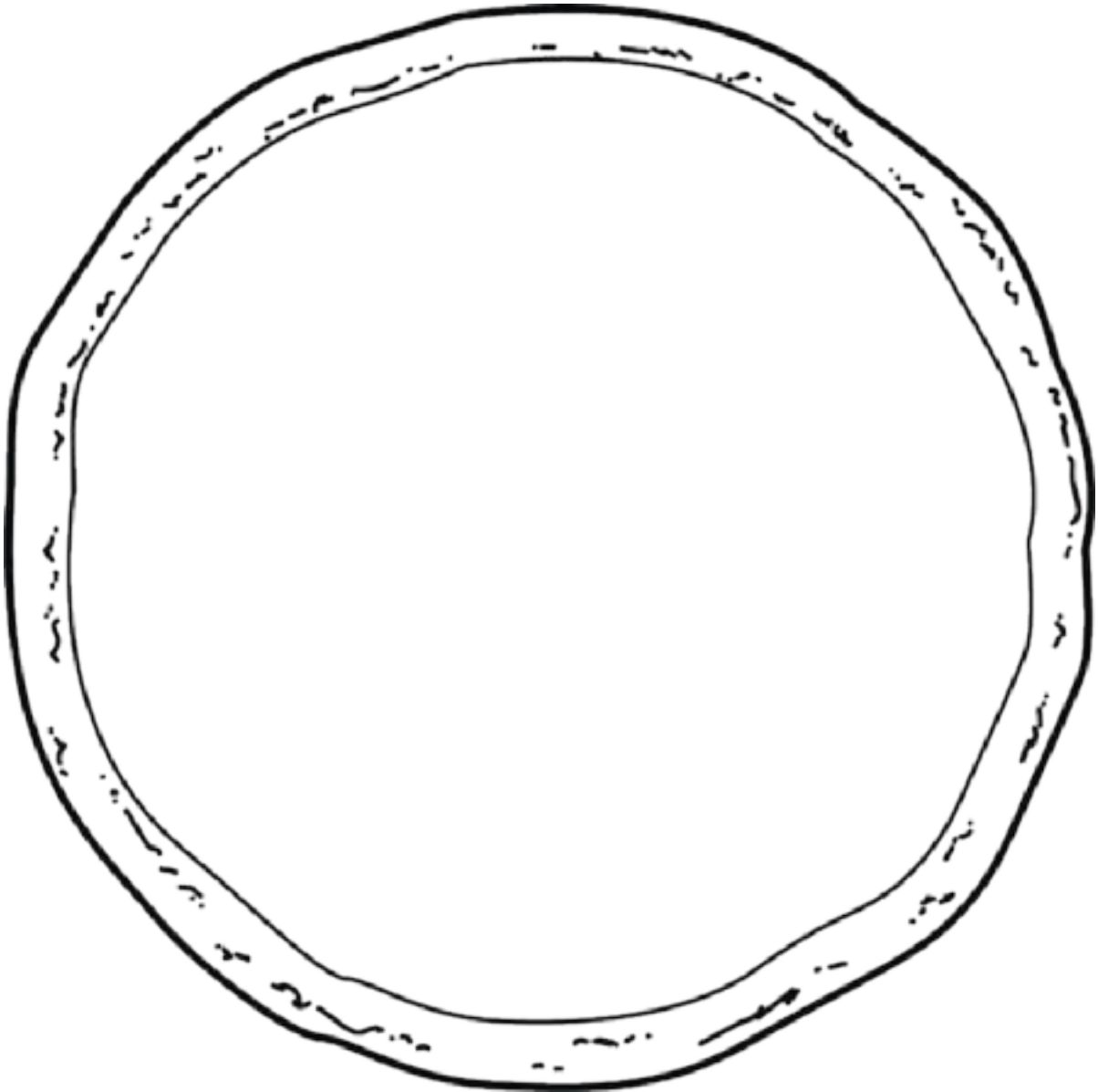
.....

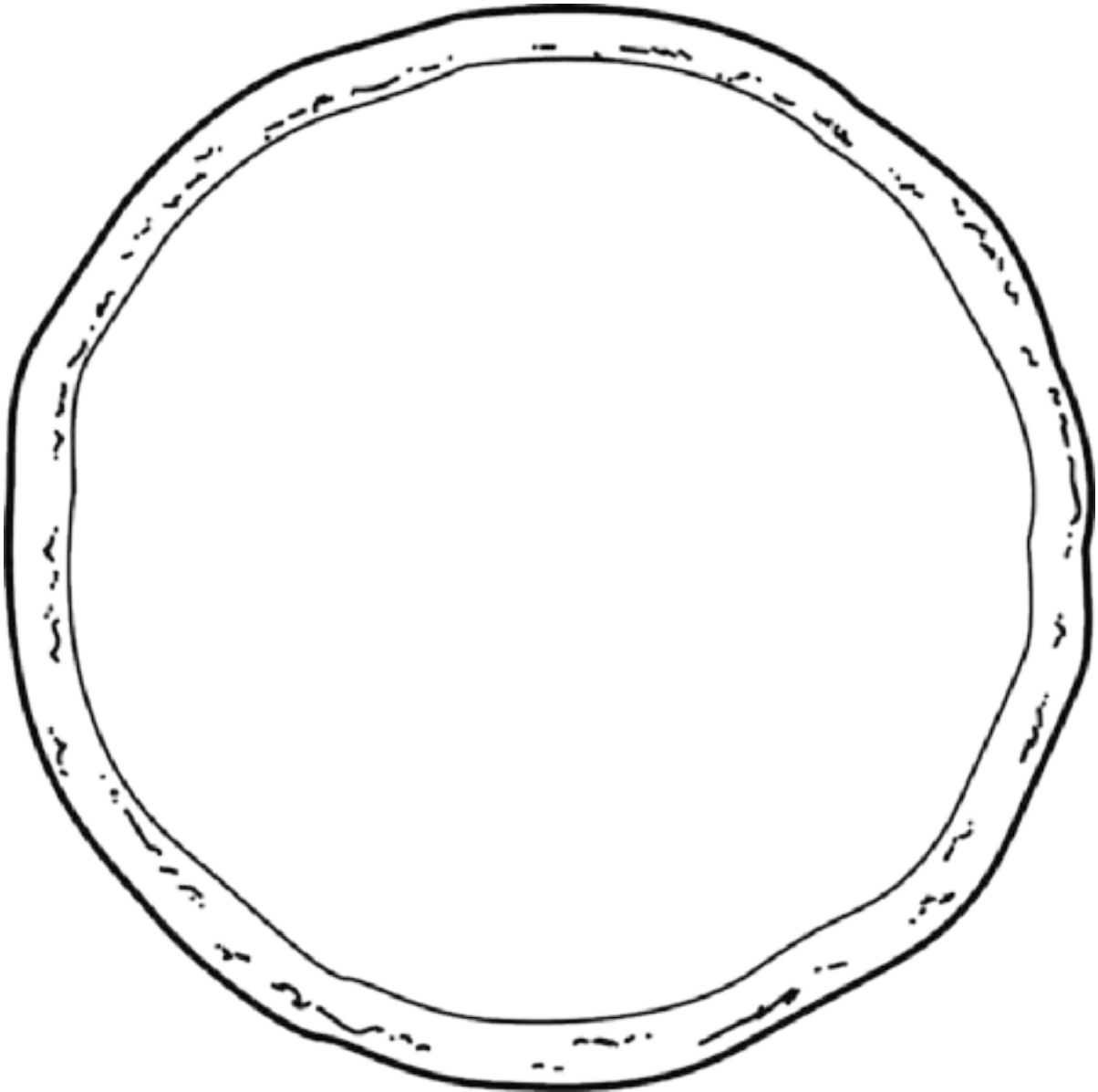


22.2: More Pizza Orders



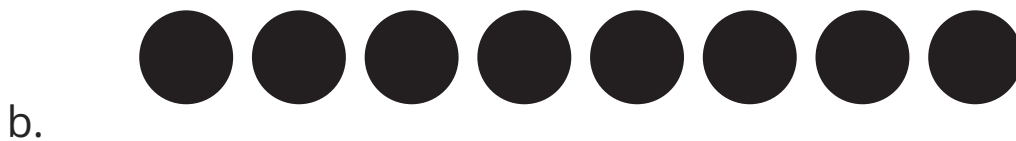
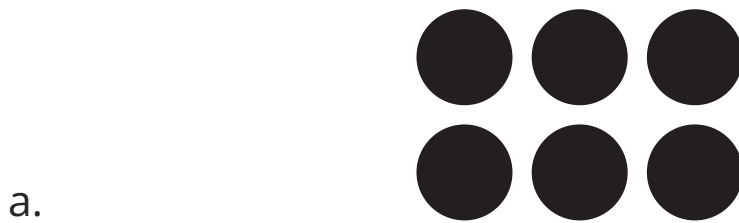






Section B: Practice Problems

1. How many dots are there?



(From Unit 2, Lesson 7.)

2. Are there more apples or plates?



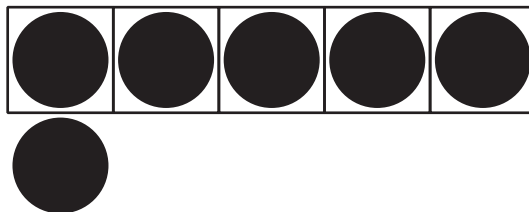
(From Unit 2, Lesson 8.)

3. Circle the 5-frame that has more dots.

A.

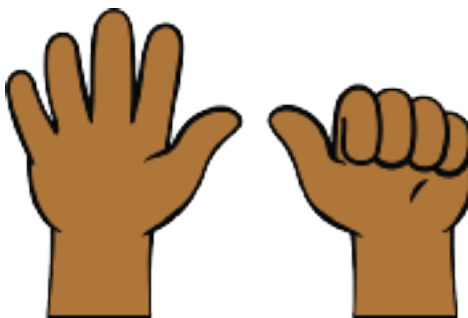


B.

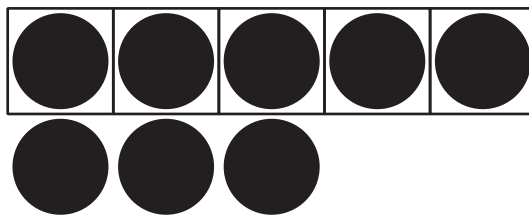


Circle the group that shows fewer things.

A.

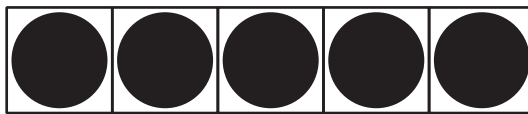


B.



(From Unit 2, Lesson 9.)

4. Circle the 3 groups that show more than this 5-frame.



Two hands are shown. The left hand has all five fingers spread, representing the number 5. The right hand has only one finger pointing up, representing the number 1.	Five black circles are arranged in a pentagonal pattern: one in the center, two above it, and two below it.
Six black circles are arranged in a single horizontal row.	A horizontal row of five squares. The first four squares each contain a black circle, and the fifth square is empty.
Eight black circles are arranged in two rows of four circles each.	

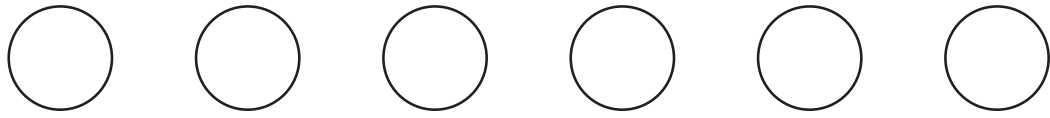
Circle the 3 groups that show fewer than this 5-frame.



A hand with three fingers extended upwards and a fist.	A 5-frame with five black circles: five in a top row and two in a bottom row.
Three black circles arranged in a horizontal row.	A single black circle.
Three black circles arranged in a horizontal row.	A single black circle.
A 5-frame with three black circles in the first three positions and two empty spaces in the last two positions.	

(From Unit 2, Lesson 10.)

5. Here is a drawing.



a. Draw a picture with more things.

b. Draw a picture with fewer things.

(From Unit 2, Lesson 11.)

6. **Exploration**

Make a set of cards with images.

Some cards can have the same number of images and some cards can have different numbers of images.

Trade your cards with a partner.

Turn over two cards and decide if they have the same number or if one has fewer and one has more.

7. Exploration

Are there fewer students than chairs?
Explain how you know.



Section C: Practice Problems

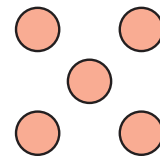
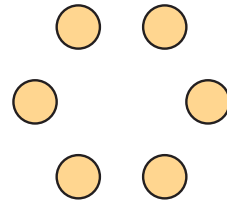
1. Draw a line from each number to the group of dots it matches.

5

6

4

7



(From Unit 2, Lesson 13.)

2. Here is the number 6.

6

Count out 6 counters.

You can use a 5-frame if you want.

--	--	--	--	--

(From Unit 2, Lesson 14.)

3. Here is the number 8.



Draw a picture showing 8 things.

(From Unit 2, Lesson 15.)

4. What is a "how many" question you can ask about this picture?



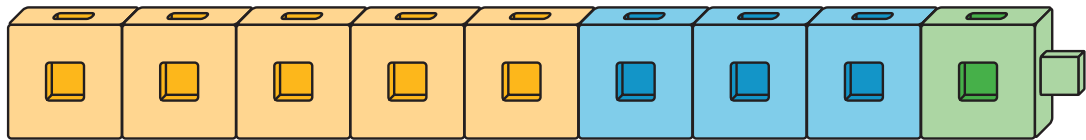
Write a number to answer your question.

(From Unit 2, Lesson 16.)

5. Exploration

Make a shape with two handfuls of pattern blocks.
Ask a “how many” question about your shape.
Trade questions with a partner and answer your partner’s question.

6. Exploration



Han says he sees 5.
Lin says she sees 4.
Tyler says he sees 3.

Explain or show how Han, Lin, and Tyler can all be correct.

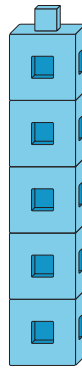
Section D: Practice Problems

1. Jada put her towers and numbers in order from 1 to 10. Fill in the blanks for the missing numbers.



(From Unit 2, Lesson 17.)

2. Here is a connecting cube tower that Mai made.



a. Write a number to show how many cubes are in Mai's tower.

b. Build a tower that shows 1 more cube than Mai's tower.

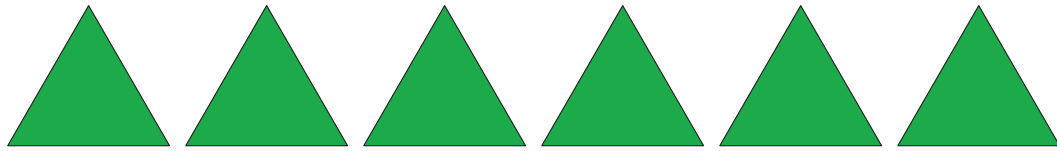
Write a number to show how many cubes are in the new tower.

c. Build a tower that shows 1 less cube than Mai's tower.

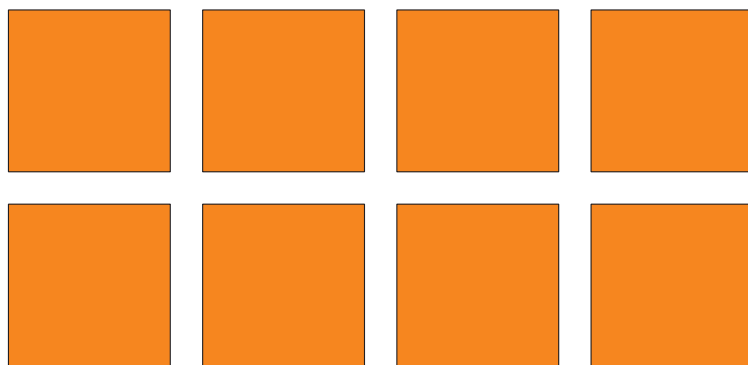
Write a number to show how many cubes are in the new tower.

(From Unit 2, Lesson 18.)

3. a. How many triangles are there? Write a number to show how many triangles there are.



- b. How many squares are there? Write a number to show how many squares there are.



- c. Circle the group that has fewer shapes.

(From Unit 2, Lesson 19.)

4. a. Show 5 in as many ways as you can.

5

b. Show 7 in as many ways as you can.

7

c. Circle the number that is more.

5

7

(From Unit 2, Lesson 20.)

5. a. Circle the number that is more.

4

8

b. Circle the number that is less.

5

9

(From Unit 2, Lesson 21.)

6. Exploration

What are some different ways to show 6 on your fingers?

Find as many ways as you can.

How are they the same?

How are they different?

7. Exploration

Grab a handful of connecting cubes or pattern blocks or other small objects.

Count the objects and write
down a number for how many.

Are there more than 7 or less than 7?

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