Lesson 19a - Number Sense - Number Recognition, Counting and Addition **How Do You Listen?**





Instructional Targets

Math Standards for Counting and Cardinality

- Know number names and the count sequence: Count by ones to 10, 20 and 100. Count by 10s to 100. Read and write numerals to 10 and 20. • Count forward beginning from a given number in a sequence.
- Count to tell the number of objects: Demonstrate one-to-one correspondence when counting. Count a number of objects to tell how many.
- Compare numbers: Indicate whether the number of objects in one group is more, less or equal to the number of objects in another group. Math Standards for Operations and Algebraic Thinking
- Represent and solve problems involving addition and subtraction: Model putting together (addition, more, equal) and taking away (subtraction, less, equal) with objects and representations. ● Solve real-life addition and subtraction problems within the ranges of 1-10 and 1-20. Understand and use +, - and = symbols when solving problems.

Math Standards for Numbers and Operations in Base Ten

• Understanding place value: Skip count by 2s and 5s to 20 and 50; by 10s to 20, 50 and 100. • Compare two numbers to determine >,< or =.

Level 3



Students will...

- Independently count a number of objects. Independently count a number of objects by 10 up to 100.
- Independently read and write numerals to 20.
- Independently count forward beginning from a given number.
- Identify the number of each object when counting.
- Count a number of objects and identify the associated numeral.
- Count objects in two defined groups and determine which group contains more or less than other or whether the groups are equal.
- Independently use objects to model the process of adding or subtracting.
- Add and subtract numbers within the context of a real-world scenario.
- Read, write and solve a math sentence.
- Skip count (by 2s, 5s or 10s) to a given number (20, 50, 100).
- Compare numbers to 20 to determine more, less or equal.

Leve 2 Students will...



Level 1



Students will...

- Count a number of objects with support. Count a number of objects by 10 up to
- 100 with support.
- Read and write numerals to 20 with support.
- Count forward from a number with support (e.g., number line or other visual supports).
- Match objects to a corresponding number (one-to-one match) to count.
- Count and report the total number of objects in a set with support.
- Pair object from two groups to determine which group has more or less than the other or whether the groups are equal.
- · Use models or objects to represent numbers in an addition or subtraction problem with support.
- Use models or objects to add or subtract in the context of a real-world scenario.
- Record pictures and numbers to model and solve a math sentence.
- Use a model to skip count by 2s, 5s and
 - Compare numbers to 20 with a model to determine more, less or equal.

- Count to a given number through an
- active participation response (e.g., voice output device, eye gaze, choice board). Count by 10s to a given number through an active participation response (e.g., voice output device, eye gaze, choice
- board).
 Select and write numerals to 20 through an active participation response.
- Participate in a counting forward activity by selecting the number counted from a field of choices (may be errorless choice). Participate in counting by matching an
- object to a number through an active participation response. Count and report the total number of
- objects in a set using an active participation response (e.g., voice output device, eye gaze, choice board).
 Select numbers (errorless choice) to
- count and compare numbers within a math problem involving the concepts of more and less.
- Select objects to match the numbers in an addition or subtraction problem (may be errorless choice).
- Participate in adding or subtracting by counting sets of objects through an active participation response (e.g., voice output device, eye gaze, choice board). Select a number (errorless choice) to
- represent numbers within a math sentence.
- Count objects and form groups of 2s, 5s and 10s through an active participation response.
- Compare two sets of objects to determine more, less or equal.



Topic Connection

In this unit, students explore the similarities and differences of the past and present. The scenarios in this lesson involve four characters, Paige, Drew, Shantel and Kyle who are looking at different items people used to listen to music in the past and present.



Topic Words



Math Words

past

people*

present*

add altogether compare

count equal sign left

less* minus sign more

number numeral plus sign

same* subtract

* Power Words

Benchmark Assessments

- · Math Problem Solving: Add and Subtract
- Basic Math: Numbers and Counting to 20
- Early Learning: Emerging Math Emerging Skills: Early Emerging Math
- Emerging Skills: Number Match

Monthly Checkpoints

- Level 2 and 3 Mathematics, Questions 1 10
 Level 1 Combined Content, Questions 5 and 6



C Less	son at a Glance	
	Activity 1.1-1.7	Activity 2.1-2.4
Instructional Activities	Number Recognition and Counting	Addition
? See how	these activities fit into the Suggested Monthl	y Plan.
ULS Materials and Resources	Number Sense 1-3 Counting to 10 Number Sense 4 Counting and Numbers to 10 Number Sense 5 Counting and Numbers to 20 Number Sense 6-7 How Many 1-10 Number Sense 8 How Many 11-20 Number Sense 9 Counting Forward Number Sense 10 Skip Counting Manipulatives	Number Sense 11-12 Adding to 10 Vertical Number Sense 13-14 Adding to 10 Horizontal Number Sense 15-16 Adding to 20 Vertical Number Sense 17-18 Adding to 20 Horizontal Manipulatives Standards Connection
	Instructional Tools: Number Journal Instructional Tools: Math Pack / Numbers Instructional Guides: Mathematics L³ Skills: Math Skills	
Additional Materials	Real Manipulative Objects (optional) radio, record, CD, headset, cassette	

Lesson 19a - Number Sense - Number Recognition, Counting and Addition **Activity 1.1 - 1.7 - Number Recognition and Counting**



Instructional Targets

Math Standards for Counting and Cardinality

- Know number names and the count sequence: Count by ones to 10, 20 and 100. Count by 10s to 100. Read and write numerals to 10 and 20. • Count forward beginning from a given number in a sequence.
- Count to tell the number of objects: Demonstrate one-to-one correspondence when counting. Count a number of objects to
- Compare numbers: Indicate whether the number of objects in one group is more, less or equal to the number of objects in another group.

Math Standards for Numbers and Operations in Base Ten

Understanding place value: Skip count by 2s and 5s to 20 and 50; by 10s to 20, 50 and 100. • Compare two numbers to determine >, < or =.



Instructional Routine









Introduce

- Introduce the activity by asking a focus question such as. "What is something we can use to listen to music—a CD or book?" Discuss students' responses and review other various items people use to listen to music.
- Display and name the Manipulatives. Explain that some of the objects are items people used in the past to listen to music and some items are things people use today. Then say, "I am going to read some math stories about Paige, Drew, Shantel and Kyle who are learning about items from the past. Your job is to count the objects."
- Review the learning goal with students: I will count objects.

Model

Choose math stories for modeling and practice based on students' needs and abilities. Math stories include manipulatives (interactive or printable). Additional math supports such as the Number Journal, Math Pack Number Cards or real objects may be used to support modeling and practice as appropriate.

- Display a Number Sense Math Story and model counting the number of objects.
- For math stories 1-3, also model identifying which character has more or less or whether they have the same. For math stories 4-8, also model identifying the numeral that corresponds to the number counted.
- For math story 9, model counting forward from a given number.
- For math story 10, model skip counting by a given number.

Provide students with appropriate math stories and math supports as needed.

Provide Practice

- Level 3: Have the student count the number of objects and identify the corresponding numeral. When appropriate, have the student compare groups of objects by asking, "Which group has more? Which group has less? Are the groups the same?" Have the student count forward from a given number. Have the student skip count.
- Level 2: Have the student use visual supports such as a number line to count objects and determine the number counted. A number line is available in the ULS Instructional Tools: Number Journal. Have the student compare groups of objects by pairing manipulatives to determine more, less or the same. Have the student use manipulatives to count forward from a given number. Have student use a model to skip count by a given number.
- **Level 1:** Using the student's active participation mode, have the student participate in counting, using manipulatives. Have the student participate in identifying the corresponding numeral from a single option or errorless choice. Have students form groups of 2s, 5s and 10s.

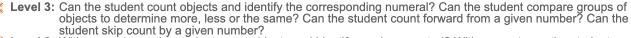
Review

Revisit the learning goal by reviewing selected math stories with students.



Check Understanding 🕜





Level 2: With support, can the student count objects and identify number counted? With support, can the student pair grouped objects and determine more, less or the same? With support, can the student count forward

from a given number? With support, can the student skip count by a given number?

Level 1: Can the student actively participate in counting and in identifying number counted? Can the student select a number from a field of choice? Can the student count and form groups using their response mode?

Lesson 19a - Number Sense - Number Recognition, Counting and Addition **Activity 2.1 - 2.4 - Addition**



Instructional Targets

Math Standards for Counting and Cardinality

- Know number names and the count sequence: Read and write numerals to 10 and 20.
- Count to tell the number of objects: Demonstrate one-to-one correspondence when counting. Count a number of objects to tell how many.

Math Standards for Operations and Algebraic Thinking

 Represent and solve problems involving addition and subtraction: Model putting together (addition, more, equal) and taking away (subtraction, less, equal) with objects and representations. • Solve real-life addition and subtraction problems within the ranges of 1-10 and 1-20. • Understand and use +, - and = symbols when solving problems.



Instructional Routine







Introduce

- Introduce the activity by asking a focus question. For example, draw and display a plus sign and a minus sign. Ask, "Which sign tells us to add?" Discuss students' responses.
- Also review the equal sign. Explain that plus signs and equal signs are used when adding objects. Say, "Today, your job is to add or count the total number of objects."
- Review the learning goal with students: Levels 3-2: I will add objects. Level 1: I will count objects.

Choose math stories for modeling and practice based on students' needs and abilities. Math stories include manipulatives (interactive or printable). Additional math supports such as the Number Journal, Math Pack Number Cards, Standards Connection or real objects may be used to support modeling and practice as

Working together, read and act out a math story.

Model

- Level 3: Go through the steps of solving an addition problem. Model using math supports as needed. Then solve the math problem.
- Level 2: Go through the steps of solving the problem. Show students how to group the manipulatives to represent the numbers in the problem. Model using math supports as needed. Then solve the problem by counting the total number of manipulatives.
- Level 1: Model counting the manipulatives for the first number in the problem. Then model matching the correct numeral with the number of manipulatives counted. Repeat for each number in the problem as well as the answer to the problem.

Provide students with appropriate math stories and math supports as needed.

Level 3: Have the student read, act out, write and solve the math stories.

Provide Practice

- Level 2: Read and act out a math story. Have the student illustrate/represent the math story using desired manipulatives. Have the student solve the math story.
- Level 1: Read and act out a math story. Have the student actively participate in counting the number or numbers using manipulatives. Have the student use their active participation mode to select the number counted from a field of 2-3 choices or errorless choice. Interactive numbers or other math supports should be used as needed.

Review

Revisit the learning goal by reviewing selected math stories with students.



Check Understanding (2)





Level 2: Can the student use objects/manipulatives to represent and solve a math problem?

Level 1: Can the student actively participate in counting objects and choosing numbers? How?



Instructional Target

Math Standards for Numbers and Operations in Base Ten

Use place value understanding and properties of operations to add and subtract.
 Build strategies to add or subtract two-digit numbers.

Math Standards for Operations and Algebraic Thinking

• Understand and apply properties of operations and the relationship between addition and subtraction.

Understand and use the count on and count backwards strategies to add and subtract.



Differentiated Tasks

Level 3



Students will...

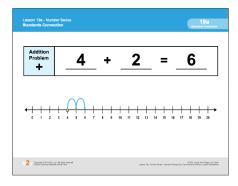
- Add and subtract numbers with concrete representations using more than one strategy (e.g., ten frames, base-ten blocks, number line, etc.).
- Independently count on or count backwards to add or subtract using objects or concrete representation (e.g., number line, objects, etc.).

Level 2 Students will...

- Add and subtract numbers with concrete representations using more than one strategy (e.g., ten frames, base-ten blocks, number line, etc.) with support.
- With support, count on or count backwards to add or subtract using objects or concrete representations (e.g., number line, objects, etc.).

- Level 1 Students will...
- Add and subtract numbers with concrete representations using more than one strategy (e.g. ten frames, base-ten blocks, number line, etc.) by making a selection (could be errorless choice).
- Participate in counting on or counting backwards to add or subtract using objects or concrete representations (e.g., number line, objects, etc.) with support.

The n2y **Number Journal** and **Math Pack Number Cards** are tools that may be used to support modeling and practice. For example, have students practice adding tens and ones using the Base Ten Counting mat in the Number Journal.



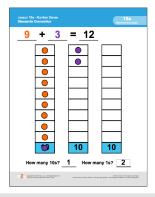
tens ones

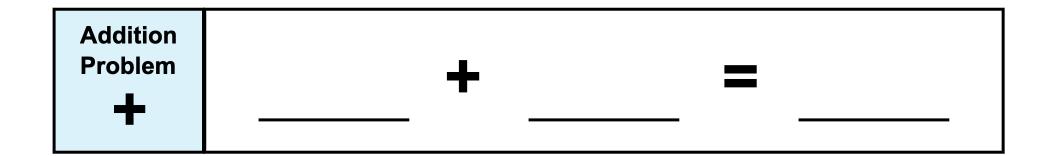
Number Line Addition Mat

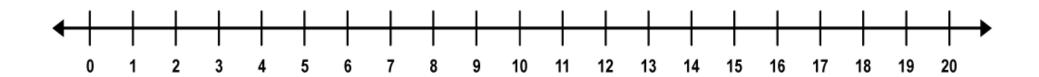
Have students use the number line strategy to add numbers. For example, record an addition problem at the top of the Number Line Addition Mat. Have students mark the first number in the problem with the circle. Then, have students use the arrows to demonstrate how to add the amount of the second number by counting on the line. Record the answer and continue practicing with new addition problems.

Ten Frame Addition Mat

Have students use the ten frame strategy to add numbers. For example, record an addition problem at the top of the Ten Frame Addition Mat. Have students use the ten frames and the orange circles to show the first number in the problem. Then, have students use the purple circles to demonstrate how to add the second number in the problem. Record the answer and how many 10s and 1s. Continue practicing with new addition problems.







+ _	 =	
10	10	10
10	10	10

How many 10s?

How many 1s?

Shantel has 2 records. Count 2 records.

Shantel







Drew has 4 records. Count 4 records.

Drew













Who has more?



Shantel





Drew





same





Who has less?

Shantel Drew















same



Paige has 8 CDs. Count 8 CDs.

Paige









0





Kyle has 3 CDs. Count 3 CDs.

Kyle











Who has more?





Paige













Who has less?

Paige







Kyle











Shantel has 9 cassettes. Count 9 cassettes.

Shantel























Drew has 5 cassettes. Count 5 cassettes.

Drew

















Shantel

Who has more?







same







Who has less?

Shantel





Drew





same













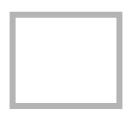




Paige sees radios. How many radios does Paige see?

Paige















7

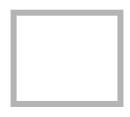




Kyle counts headsets. How many headsets does Kyle count?

Kyle















5



2

Paige sees 7 radios. How many radios does Paige see?

Paige















7





Kyle counts 6 headsets. How many headsets does Kyle count?

Kyle















5

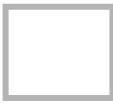


2

Shantel collects records. How many records does Shantel collect?

Shantel



































Drew sees CDs. How many CDs does Drew see?

Drew





































Shantel collects 15 records. How many records does Shantel collect?

Shantel





















Drew sees 18 CDs. How many CDs does Drew see?

Drew





























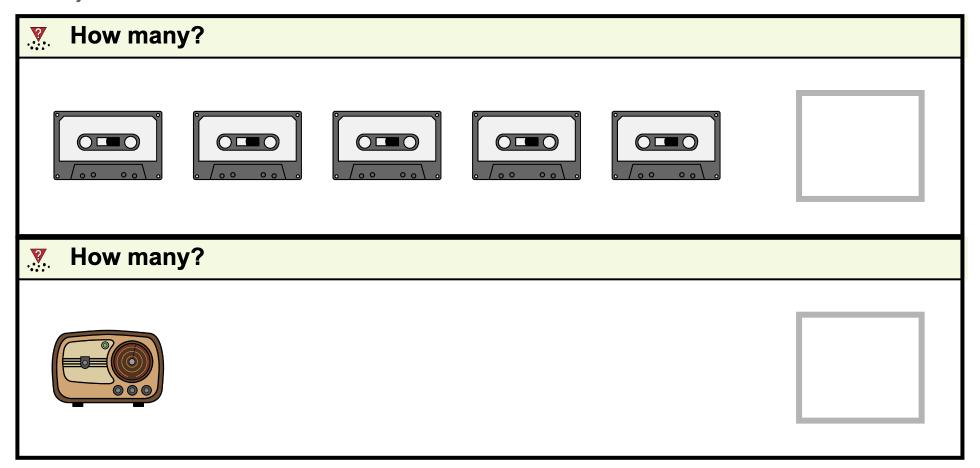




For hands-on instruction, print, cut out and laminate	€.
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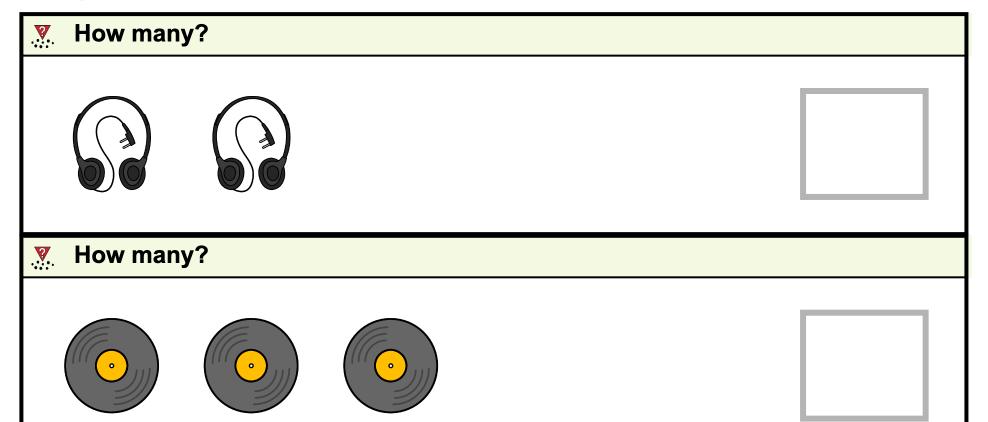
Number Sense 6a How Many? 1 - 5

Name: _



Number Sense 6b How Many? 1 - 5

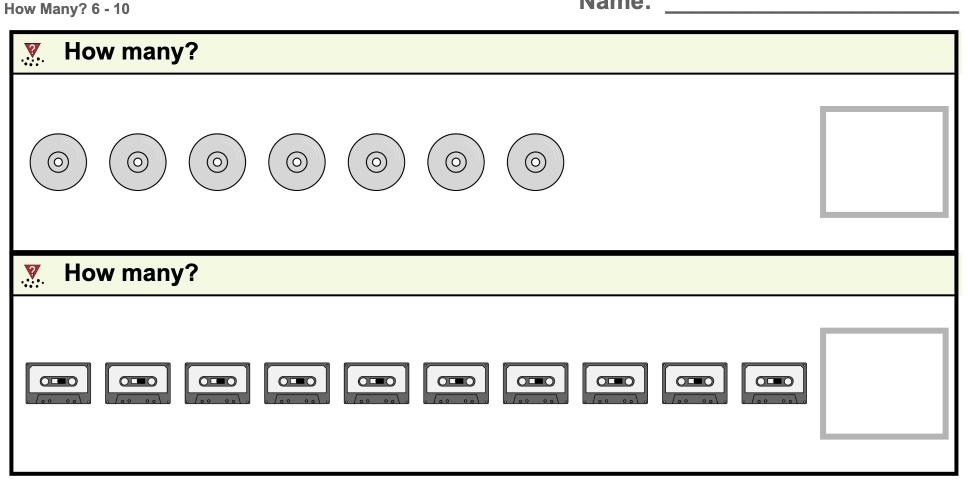
Name:



1 2 3 4 5

Number Sense 7a

Name:



Number Sense 7b How Many? 6 - 10

Name: _____



How many?















V

How many?



















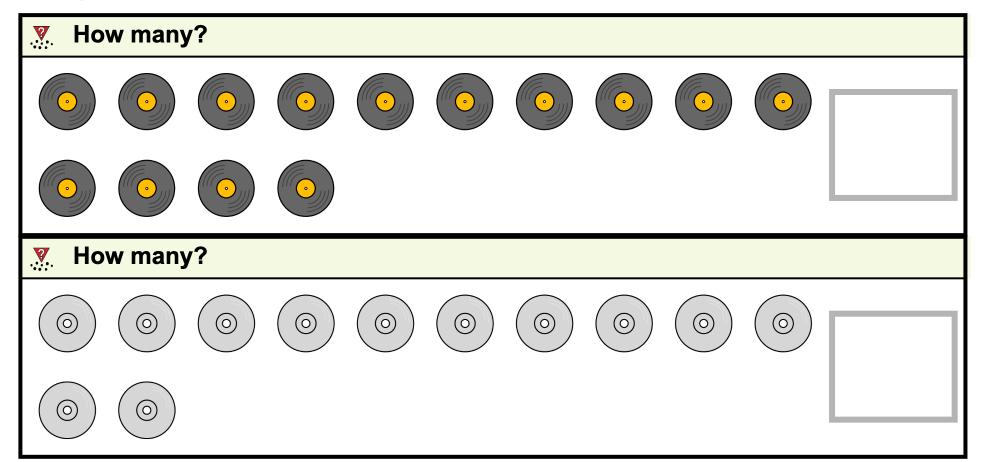


6 7 8 9 10

For hands-on instruction,	print,	cut	out	and	laminate
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Number Sense 8a

Number Sense 8a
How Many? 11 - 20
Name:

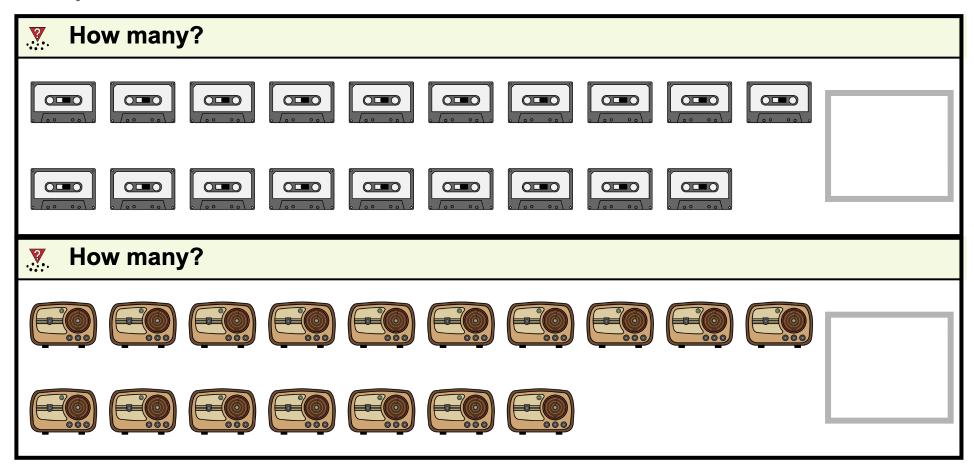


11 12 13 14 15 16 17 18 19 20

For hands-or	instruction,	print, cut	out and	laminate
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Number Sense 8b How Many? 11 - 20

Name: _____



11 12 13 14 15 16 17 18 19 20

1 2 3 Paige has 3 headsets. Then she gets some more.

• •• • Start counting at 3. How many altogether?

3











1 2 3 Kyle collects 4 records. Then he collects some more.

• • • • Start counting at 4. How many altogether?

4





1 2 3 Shantel listens to 1 CD. Then she listens to some more.

Start counting at 1. How many altogether?







1 2 3 Drew finds 5 cassettes. Then he finds some more.

• • • Start counting at 5. How many altogether?

5











123 Coun	t by 2s			
6	8	12	14	
123 Coun	t by 5s			
15	20	30	35	
123 Coun	t by 10s	 		
123 Coun 30	t by 10s 40	60	70	
	40	60	70	

Paige has 2 headsets.	
Drew has 0 headsets.	
How many altogether?	
Shantel collects 4 records.	
Shantel collects 4 records.	
	+

Paige has 2 headsets.	
	2
Drew has 0 headsets.	+
How many altogether?	
Shantel collects 4 records.	
Shantel collects 4 records.	
Shantel collects 4 records. Kyle collects 2 records.	- -
	+
Kyle collects 2 records.	+

+ 0
4
4 2

Paige listens to 3 CDs.	
Drew listens to 1 CD.	
	+
How many altogether?	
Shantel sees 5 radios.	
Shantel sees 5 radios.	
Shantel sees 5 radios. Kyle sees 3 radios.	
	+

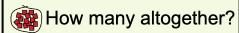
Paige listens to 3 CDs.	
	3
Drew listens to 1 CD.	
	+ <u> </u>
How many altogether?	
Shantel sees 5 radios.	
Shantel sees 5 radios.	5
Shantel sees 5 radios. Kyle sees 3 radios.	5
	5 +

3
+ 1
5
5 + 3

Paige counts 2 headsets.	Drew counts 1 headset.	How many altogether?
Shantel sees 4 records.	Kyle sees 3 records.	How many altogether?

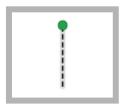
Paige counts 2 headsets.

Drew counts 1 headset.

















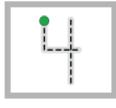


Shantel sees 4 records.

Kyle sees 3 records.



How many altogether?























2

+

1



4

+

3









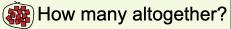




Paige listens to 5 CDs.	Drew listens to 5 CDs.	How many altogether?
Shantel sees 3 cassettes.	Kyle sees 2 cassettes.	How many altogether?
Shantel sees 3 cassettes.	Kyle sees 2 cassettes.	How many altogether?
Shantel sees 3 cassettes.	Kyle sees 2 cassettes.	How many altogether?

Paige listens to 5 CDs.

Drew listens to 5 CDs.

































Shantel sees 3 cassettes.

Kyle sees 2 cassettes.



How many altogether?





















5

+

5



0















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3

H

2









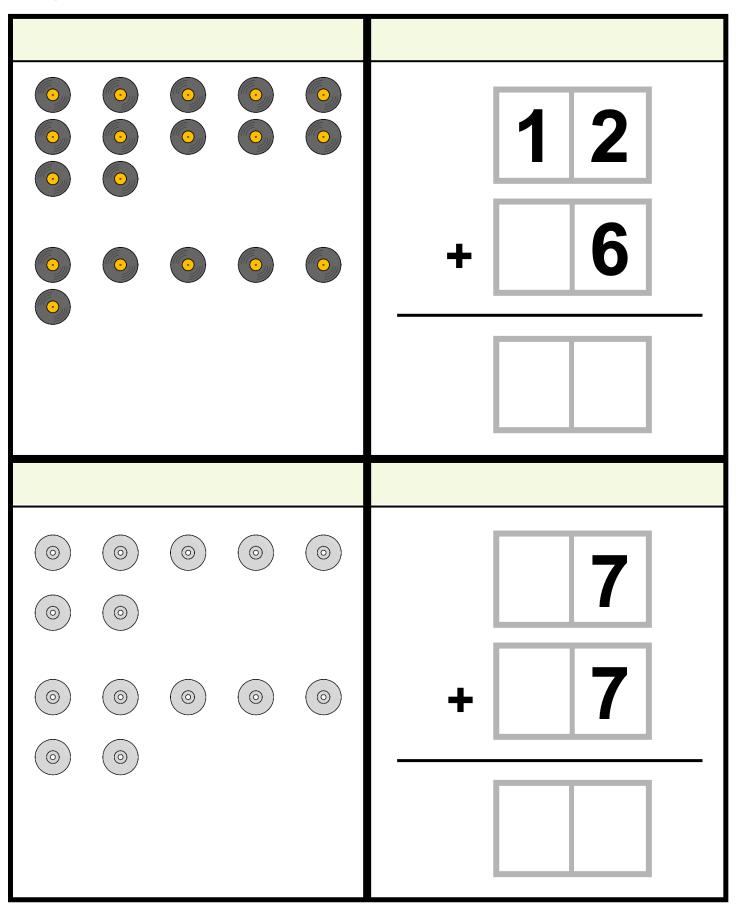
Paige counts 11 radios.	
Drew counts 5 radios.	
	+
How many altogether?	
Shantel has 7 headsets.	
Shantel has 7 headsets.	
Shantel has 7 headsets.	
Shantel has 7 headsets. Shantel has 7 headsets. Kyle has 4 headsets.	
	+

Paige counts 11 radios. Drew counts 5 radios. How many altogether? Shantel has 7 headsets. Kyle has 4 headsets. How many altogether?

11 5			
7			
+ 4			
	1		

Paige collects 12 records.	
Drew collects 6 records.	
	+
How many altogether?	
Shantel has 7 CDs.	
Shantel has 7 CDs.	
	+
(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	+

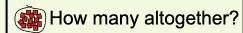
Paige collec	cts 12 reco	rds.	
0 0	•	0	
	•	0	
0			i 2
Drew collec	cts 6 record	ds.	_ 6
	0	0	+
(How ma	any altogetl	ner?	
)			
Shantel	has 7 CDs.		
Shantel I	has 7 CDs.	·	•7
			7
			7
			-
© © Kyle ha	as 7 CDs.	(i)	+



Paige counts 10 cassettes.	Drew counts 3 cassettes.	How many altogether?
-	-	=
Shantel sees 13 radios.	Kyle sees 7 radios.	How many altogether?
Shantel sees 13 radios.	Kyle sees 7 radios.	How many altogether?
Shantel sees 13 radios.	-	How many altogether?
-		How many altogether?
		How many altogether?
		How many altogether?

Paige counts 10 cassettes.

Drew counts 3 cassettes.





























Shantel sees 13 radios.

Kyle sees 7 radios.



How many altogether?















































10

+

3









13

+

7





































Paige has 10 headsets. How many altogether? Drew has 2 headsets. How many altogether? Kyle counts 7 records. Shantel counts 8 records.

Paige has 10 headsets.

Drew has 2 headsets.





























Shantel counts 8 records.

Kyle counts 7 records.



How many altogether?





