

## GRADE 2 MATH: TASK CAROL'S NUMBERS RUBRIC

The rubric section contains a scoring guide and performance level descriptions for the Carol's Numbers task.

**Scoring Guide:** The scoring guide is designed specifically to each small performance task. The points highlight each specific piece of student thinking and explanation required of the task and help teachers see common misconceptions (which errors or incorrect explanations) keep happening across several papers. The scoring guide can then be used to refer back to the performance level descriptions.

**Performance Level Descriptions:** Performance level descriptions help teachers think about the overall qualities of work for each task by providing information about the expected level of performance for students. Performance level descriptions provide score ranges for each level, which are assessed using the scoring guide.

## Grade 2 Math: Carol's Numbers

## Carol's Numbers Scoring Guide

**Carol's Numbers**  
**Mathematics Assessment Collaborative**  
**Performance Assessment Rubric Grade 2**

	Carol's Numbers: Grade 2	Points	Section Points
	<p>The core elements of the performance required by this task are:</p> <ul style="list-style-type: none"> <li>• Understand the relative magnitude of whole numbers and the concepts of sequences, quantity, and the relative position of numbers</li> <li>• Use strategies to estimate and judge the reasonableness of results</li> <li>• Communicate reasoning using words, numbers or pictures</li> </ul> <p>Based on these credit for specific aspects of performance should be assigned as follow:</p>		
1	Gives correct answer of : <b>742</b>	<b>1</b>	<b>1</b>
2	Gives correct answer of: <b>247</b>	<b>1</b>	
	Gives correct explanation such as: Put the smallest number on the left, then the next smallest number and the largest number last	<b>1</b>	<b>2</b>
3	Places 85 approximately twice the length of 42	<b>1</b>	<b>1</b>
4	Places 21 approximately one half the length of 42 (use a range from approximately 15 -25)	<b>2</b>	
			<b>2</b>
5	Places 31 approximately on half the length between 21 and 42	<b>1</b>	
	Dependent upon the correct placement- Gives correct explanation such as: 31 is almost in the middle of 21 and 42. Or Because 31 is 10 more than 21 or Because 31 is 11 less than 42	<b>1</b>	
			<b>2</b>
<b>Total</b>			<b>8</b>

## Grade 2 Math: Carol's Numbers

### Rubric

#### Performance Level Descriptions and Cut Scores

Performance is reported at four levels: 1 through 4, with 4 as the highest.

#### Level 1: Demonstrates Minimal Success (0 – 1 point)

The student's response shows few of the elements of performance that the tasks demand as defined by the CCSS. The work shows a minimal attempt on the problem and struggles to make a coherent attack on the problem. Communication is limited and shows minimal reasoning. The student's response rarely uses definitions in their explanations. The students struggle to recognize patterns or the structure of the problem situation.

#### Level 2: Performance Below Standard (2 – 4 points)

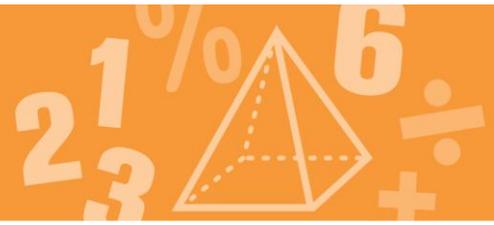
The student's response shows some of the elements of performance that the tasks demand and some signs of a coherent attack on the core of some of the problems as defined by the CCSS. However, the shortcomings are substantial and the evidence suggests that the student would not be able to produce high-quality solutions without significant further instruction. The student might ignore or fail to address some of the constraints of the problem. The student may occasionally make sense of quantities in relationships in the problem, but their use of quantity is limited or not fully developed. The student response may not state assumptions, definitions, and previously established results. While the student makes an attack on the problem it is incomplete. The student may recognize some patterns or structures, but has trouble generalizing or using them to solve the problem.

#### Level 3: Performance at Standard (5 – 6 points)

For most of the task, the student's response shows the main elements of performance that the tasks demand as defined by the CCSS and is organized as a coherent attack on the core of the problem. There are errors or omissions, some of which may be important, but of a kind that the student could well fix, with more time for checking and revision and some limited help. The student explains the problem and identifies constraints. The student makes sense of quantities and their relationships in the problem situations. S/he often uses abstractions to represent a problem symbolically or with other mathematical representations. The student response may use assumptions, definitions, and previously established results in constructing arguments. S/he may make conjectures and build a logical progression of statements to explore the truth of their conjectures. The student might discern patterns or structures and make connections between representations.

#### Level 4: Achieves Standards at a High Level (7 - 8 points)

The student's response meets the demands of nearly all of the tasks as defined by the CCSS, with few errors. With some more time for checking and revision, excellent solutions would seem likely. The student response shows understanding and use of stated assumptions, definitions and previously established results in constructing arguments. The student is able to make conjectures and build a logical progression of statements to explore the truth of their conjecture. The student response routinely interprets their mathematical results in the context of the situation and reflects on whether the results make sense. The communication is precise, using definitions clearly. The student looks closely to discern a pattern or structure. The body of work looks at the overall situation of the problem and process, while attending to the details.



## GRADE 2 MATH: CAROL'S NUMBERS

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## Student Work

Student A

### Carol's Numbers

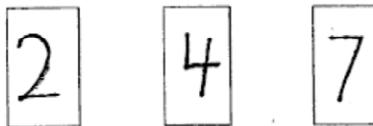
Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?

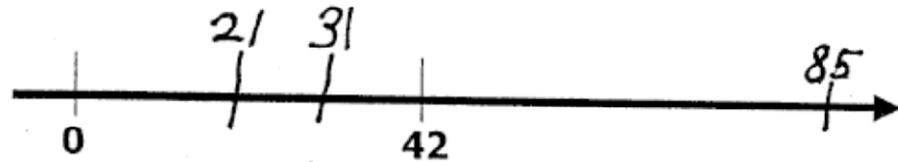


Explain to Carol how she can make the smallest possible number using her three cards.

You take the smallest number  
and place it in the front. Then you take  
the next smallest a place it behind the smallest,  
and so on.

## Student A

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

You place the 31 in the middle and a little smaller because 31 is ten more than 21 and is 11 less than 42.

Student B

### Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?

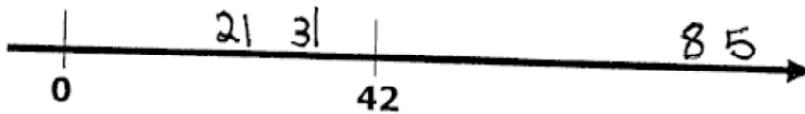


Explain to Carol how she can make the smallest possible number using her three cards.

She has the numbers 4, 7, 2, so her smallest number is 2 so she can put it in the hundreds. She has now 74 so now her smallest number is 4 so she puts it in the tens. Now her only number is 7 so she puts it in the ones.

## Student B

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

31 is almost between  
21 and 42.

Student C

## Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?



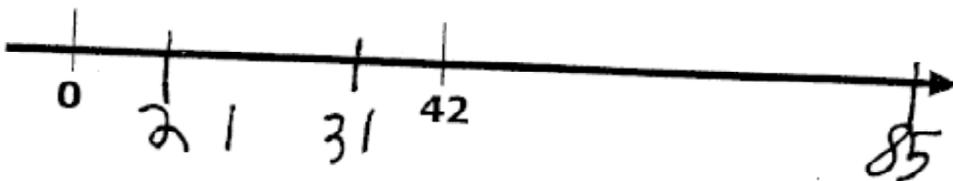
Explain to Carol how she can make the smallest possible number using her three cards.

She puts them least  
to greatest.

rt

## Student C

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

I put 31 in the middle of 21 and 42 because it is in between the two numbers.

Student D

## Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?

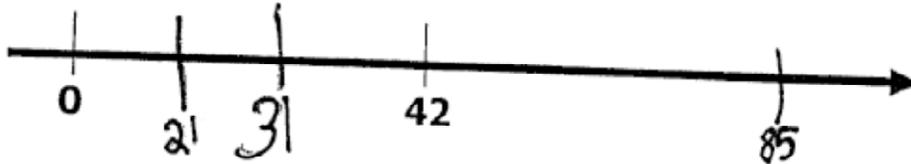


Explain to Carol how she can make the smallest possible number using her three cards.

She can put the smallest number first and the biggest number last.

## Student D

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

I knew I had to place 31 before and close to 42 because it less than 42 and close.

Student E

## Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?

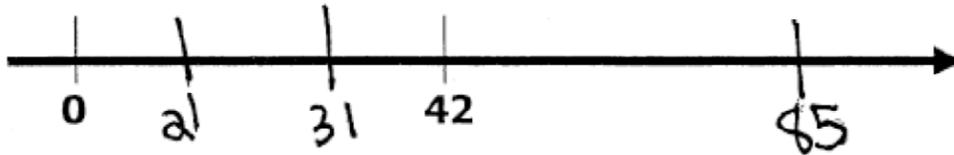


Explain to Carol how she can make the smallest possible number using her three cards.

She could put the card with the number 2 to the left, 4 to the middle, and 7 on the right.

## Student E

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

I knew because 31 is  
before 42 and after 21.

Student F

## Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?

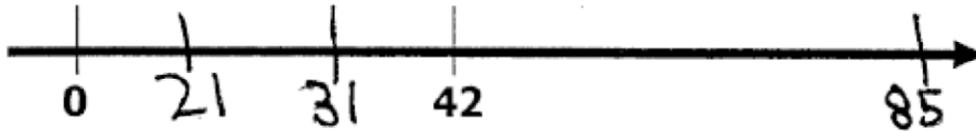


Explain to Carol how she can make the smallest possible number using her three cards.

247 is less than 427 and 742.  
That why 247 is less.

## Student F

Carol's teacher drew a number line on the board.



1. About where would 85 be? Place 85 on the number line where it belongs.
2. About where would 21 be? Place 21 on the number line where it belongs.
3. About where would 31 be? Place 31 on the number line where it belongs.

Tell Carol how you knew where to place 31 and why.

31 was less than 42. SO  
 31 is betwehe 21 42.

Student G

## Carol's Numbers

Carol has three number cards.



4. What is the largest three-digit number Carol can make with her cards?



5. What is the smallest three-digit number Carol can make with her cards?



Explain to Carol how she can make the smallest possible number using her three cards.

The smallest number she can make is one.