2008

Green River

Regional Educational Cooperative

GRADES K–1

MATHEMATICS

MULTIPLE CHOICE

AND

CONSTRUCTED RESPONSE

Measured Progress

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Multiple Choice Items

Multiple Choice Item 1

Standard: MA-EP-1.3.01: Number Operations — Students will analyze real-world problems to identify appropriate representations using mathematical operations, and will apply operations to solve real-world problems with the following constraints: add and subtract whole numbers with three digits or less; multiply whole numbers of 10 or less; add and subtract fractions with like denominators less than or equal to four, and add and subtract decimals related to money.

Bloom's Taxonomy
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Depth of Knowledge
Level 1
Level 2
Level 3
Level 4

Answer Key: C

Portion of Standard Being Addressed
This item requires the student to solve real-world problems by adding whole numbers with two digits.

1. You may use the hundreds chart below to answer this question.

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

The class aquarium had 36 fish in it.

Then the teacher put 20 more fish in it.

How many fish are in the aquarium now?

A. 38
B. 46
C. 56

Multiple Choice Item 2

Standard: MA-EP-1.3.02: Number Operations — Students will skip-count forward and backward by 2s, 5s, 10s, and 100s.

Bloom's Taxonomy
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Depth of Knowledge
Level 1
Level 2
Level 3
Level 4

Answer Key: C

Portion of Standard Being Addressed
This item requires the student to skip-count forward by 10s.

2. Which list of numbers shows counting by tens?

   A. 5, 10, 15, 20, 25, . . .
   B. 10, 11, 12, 13, 14, . . .
   C. 10, 20, 30, 40, 50, . . .

Multiple Choice Item 3

Standard: MA-EP-4.1.01: Data Representations — Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams).

Bloom's Taxonomy
Knowledge
Comprehension
Application
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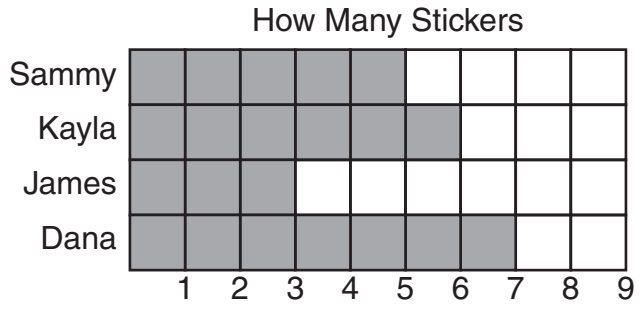
Synthesis
Evaluation

Depth of Knowledge
Level 1
Level 2
Level 3
Level 4

Answer Key: C

Portion of Standard Being Addressed
This item requires the student to analyze data from a bar graph.

3. Look at the bar graph below.



Who has 2 **more** stickers than Sammy?

A. Kayla
B. James
C. Dana

Multiple Choice Item 4

Standard: MA-EP-4.1.01: Data Representations — Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams).

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Application
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Evaluation

Depth of Knowledge
Level 1
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Level 3
Level 4

Answer Key: A

Portion of Standard Being Addressed
This item requires the student to analyze data from a table/chart.

4. Look at the chart below.

Favorite Rides

Ride	Votes
Ferris wheel	2
Roller coaster	10
Bumper boats	5

How many more people voted for the roller coaster than for the Ferris wheel?

A. 8
B. 5
C. 3

Multiple Choice Item 5

Standard: MA-EP-5.1.01: Patterns, Relations, and Functions — Students will extend simple patterns (e.g., 2,4,6,8, . . .).

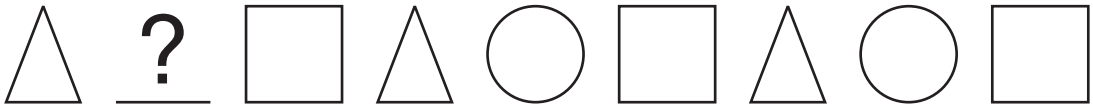
Bloom's Taxonomy
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Depth of Knowledge
Level 1
Level 2
Level 3
Level 4

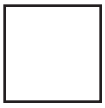
Answer Key: B

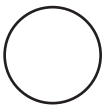
Portion of Standard Being Addressed
This item requires the student to find a missing value in a simple pattern.

5. Look at the pattern below.



Which shape belongs on the blank line?

A. 

B. 

C.

Constructed Response Items

Constructed Response Item 6 Schedule with Calendar

Standard: MA-EP-1.5.01: Properties of Numbers and Operations — Students will identify and provide examples of odd numbers, even numbers, and multiples of a number, and will apply these numbers to solve real-world problems.

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6. Use the calendar below to answer the question.

Julie, Susie, and Wendy have a schedule for their chores.

- Julie sets the table every other day.
- Susie brushes the dog every three days.
- Wendy waters the plants every four days.

They all begin their chores on September 5.

a. Make a list of **all** the dates when Wendy will water the plants.
b. Name the **first** date after September 5 when **Julie and Susie** will do their chores on the same day.
c. On what other dates during the month will **Julie and Susie** do their chores on the same day?
d. What is the **last** day of the month that **all three** girls will do their chores on the same day?

Schedule with Calendar

Scoring Guide

Score	Description
4	The student demonstrates excellent problem solving skills by correctly analyzing and solving real-world problems involving multiples and common multiples.
3	The student demonstrates good problem solving skills by analyzing and solving real-world problems involving multiples and common multiples with only minor errors or omissions. The response indicates that the student could readily correct any errors and omissions if given written feedback.
2	The student demonstrates basic problem solving skills by correctly completing a significant portion of the required tasks. The response indicates that the student would require some instruction to successfully complete the task.
1	The student demonstrates minimal problem solving skills. The response indicates that the student would require significant instruction to complete the task.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Sample Response:

Part a: Sept. 5, 9, 13, 17, 21, 25, 29

Part b: Sept. 11

Part c: Sept. 17, 23, 29

Part d: Sept. 29

Sample Student Responses

Schedule with Calendar

A. 5 P 13 17 21 25 29

B 11

C 23 17 29

D 29

Score Point: 4

a- 5, 9, 12, 16, 20, 24, 28

b. 11

c. 5, 11, 23, 29

d. 30

Score Point: 3

Constructed Response Item 7 Andy's Tiles

Standard: MA-EP-4.4.03: Probability — Students will describe and give examples of the probability of an unlikely event (near zero) and a likely event (near one).

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7. Andy has a bag filled with tiles.
   - 8 red tiles
   - 6 white tiles
   - 3 blue tiles

   Andy will pick one tile from the bag without looking. What color tile will he **least likely** pick? Explain how you know.

Andy's Tiles

Scoring Guide

Score	Description
2	The student demonstrates a thorough understanding of the likelihood of events by determining which color of tile will least likely be drawn from a bag. The response may contain minor errors or omissions but they do not detract from the demonstration of mastery.
1	The student demonstrates a partial understanding of the likelihood of events.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Sample Response:

He is least likely to pick the blue tile because there is the least number of blue tiles in the bag.

OR

He will least likely pick the blue tile because there are only 3 blue tiles. There are more white tiles and there are more red tiles than blue tiles.

Sample Student Responses

Andy's Tiles

8 red
6 witc
3 blues

Answer: blue
because there
is only 3 blues.

Score Point: 2

my answer is blue.
because there are only
three blue tiles and more
of red and white.

Score Point: 2