Minnesota Comprehensive Assessments- Series II (MCA-IIs)

Mathematics Grade 4.1

Tally Tables

Tally Tables link the test items to the concepts and skills they assess, as well as to activities that target student achievement with those concepts and skills.

For example, if students miss any of the items 11-14, their performance may indicate that they need more practice with reading and writing whole numbers to 100,000. Activities 1-12 provide practice with those strategies.

Note that the tables are organized by math substrands. The substrand is identified in the page header.

Also note that some of the benchmark concepts and skills may be assessed by constructed response (short answer or illustration). Wherever this is a possibility, a short answer item has been included along with a scoring rubric to help prepare students for those items.

Student Name:

Correct Answer	**Tally Items Missed**	**Sub Strand**	**Benchmark Concept and Skill**	**Practice Activities**
1. C	☐	Number Sense	Use fractions and decimals to solve real-world or mathematical problems without a calculator.	Activities 18-27
2. D	☐			
3. C	☐			
4. A	☐			
5. B	☐			
6. A	☐	Number Sense	Use rounding and estimation to solve real-world or mathematical problems without a calculator.	Activities 28-32
7. B	☐			
8. C	☐			
9. C	☐			
10. A	☐			
11. B	☐	Number Sense	Read and write whole numbers to 100,000.	Activities 1-12
12. C	☐			
13. C	☐			
14. A	☐			
15. C	☐	Number Sense	Compare and order whole numbers.	Activities 1-17
16. C	☐			
17. D	☐			
18. B	☐			

Computation and Operations

Student Name:

Correct Answer	Tally Items Missed	Sub Strand	Benchmark Concept and Skill	Practice Activities
1. C	☐	Computation and Operations	Multiply single digit multiples of powers of ten mentally.	Activities 1-4
2. B	☐			
3. C	☐			
4. A	☐			
5. B	☐	Computation and Operations	Add without a calculator.	Activities 5-10
6. B	☐			
7. D	☐			
8. B	☐			
9. A	☐	Computation and Operations	Subtract without a calculator.	Activities 8-13
10. D	☐			
11. A	☐			
12. C	☐			
13. D	☐	Computation and Operations	Demonstrate mastery of multiplication facts.	Activities 14-37
14. D	☐			
15. D	☐			
16. C	☐			
17. D	☐	Computation and Operations	Use addition and subtraction to solve real-world or mathematical problems.	Activities 5-13 38-45 CR
18. C	☐			
19. B	☐			
20. See Rubric	☐			
21. C	☐	Computation and Operations	Use multiplication and division to solve real-world or mathematical problems.	Activities 14-45 CR
22. C	☐			
23. D	☐			
24. D	☐			
25. A	☐			
26.See Rubric	☐			

Rubrics for Items 20 and 26 are on the following page 4.

Student Name:

RUBRIC FOR SCORING ITEM 20	
SCORE	**DESCRIPTION**
3	• Answered number of books read in November as 192. Explained answer. • Answered number of books read in December as 182. Explained answer. • Answered number of books read in all as 470. Explained answer.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 26	
SCORE	**DESCRIPTION**
3	• Wrote a true number sentence for the problem. For example, 28÷2 = 14. • Answered 14 inches as Rocky's height . • Wrote a true number sentence to use to check the solution. For example, 14 x 2 = 28.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

Patterns, Functions, and Algebraic Thinking

Student Name:

Correct Answer	Tally Items Missed	Sub Strand	Benchmark Concept and Skill	Practice Activities
1. D	☐	Algebraic Thinking	Identify a missing number or operation without a calculator.	Activities 1-12
2. A	☐			
3. B	☐			
4. D	☐			
5. A	☐	Algebraic Thinking	Use the properties of arithmetic that involve order, grouping and the numbers 1 and 0, to do simple computations without a calculator.	Activities 13-18 25-27
6. D	☐			
7. A	☐			
8. B	☐			
9. B	☐	Patterns and Functions	Describe patterns in tables and graphs.	Activities 19-24
10. B	☐			
11. C	☐			
12. C	☐			
13. See Rubric	☐			

RUBRIC FOR SCORING ITEM 13 ABOVE	
SCORE	**DESCRIPTION**
3	• Completed the pattern by writing number 35 in the space in the table. • Identified the rule for the pattern. For example, the output is 15 less than the input. • Correctly identified 15 as the output for input 30.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

Data Analysis and Probability

Student Name:

Correct Answer	Tally Items Missed	Sub Strand	Benchmark Concept and Skill	Practice Activities
1. B	☐	Data Analysis	Represent and describe data in tables and graphs using mathematical language.	Activities 1-13, 23
2. A	☐			
3. C	☐			
4. See Rubric	☐			
5. C	☐	Probability	Express outcomes of random experiments.	Activities 17-23
6. B	☐			
7. B	☐			
8. See Rubric	☐			
9. B	☐	Probability	Represent possible arrangements of two or three objects.	Activities 14-16, 23
10.A	☐			
11.B	☐			
12. See Rubric	☐			

Rubrics for Items 4, 8, and 12 are on the following page 7.

Student Name:

RUBRIC FOR SCORING ITEM 4 ABOVE	
SCORE	**DESCRIPTION**
3	• Identified David, Sue, and Paul as the students taking classes. • Identified Mary as the student not taking the classes. • Identified Art, Dance and Music as the classes that Sue is taking.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 8 ABOVE	
SCORE	**DESCRIPTION**
3	• Explained how to find probability of drawing a lemon candy. For example, there are six candies in all in the bag and two are lemon so there is a two out of six chance of drawing a lemon candy. • Correctly expressed the probability as a fraction 2/6 or 1/3. • Correctly identified the probability of drawing a lemon or a cherry candy from the bag as 4 out of 6.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 12 ABOVE	
SCORE	**DESCRIPTION**
3	• Explained how to find possible combinations for the flower vase. For example, explained that there are three flowers and two vases. One vase can have three different flowers in it. So can the other. So there are six combinations. (A drawing may be sufficient if it supports the solution). • Identified the number of combinations as 6. • Identified the number of combinations as 4 without the roses..
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

Spatial Sense and Geometry

Student Name:

Correct Answer	**Tally Items Missed**	**Sub Strand**	**Benchmark Concept and Skill**	**Practice Activities**
1. B	☐	Spatial Sense	Identify congruent and/or similar figures.	Activities 1-6
2. A	☐			
3. C	☐			
4. B	☐			
5. B	☐	Spatial Sense	Identify parallel and/or perpendicular lines.	Activities 7-10
6. B	☐			
7. A	☐			
8. C	☐			
9. A	☐	Geometry	Identify and/or classify two- and three-dimensional shapes by their attributes.	Activities 11-18
10. D	☐			
11. See Rubric	☐			
12. See Rubric	☐			
13. C	☐	Geometry	Identify right angles in geometric figures or in appropriate objects. Determine whether angles in geometric figures are greater or less than a right angle.	19-20
14. C	☐			
15. A	☐			
16. A	☐			

Rubrics for Items 11 and 12 are on the following page 9.

Student Name:

RUBRIC FOR SCORING ITEM 11 ABOVE	
SCORE	**DESCRIPTION**
3	• Included at least three statements of comparison. For example, both shapes have four sides. Shape A has sides of different lengths. Shape B has sides the same length. Both shapes have four angles. Shape B has angles the same size. Shape A has angles that are different sizes.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 12 ABOVE	
SCORE	**DESCRIPTION**
3	• Identified blocks A and D as pyramids. • Identified blocks B and C as prisms. • Explained difference. For example, pyramids come to a point (every vertex of the base comes to a single vertex) but prisms have opposite faces that are parallel.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

Measurement

Student Name:

Correct Answer	**Tally Items Missed**	**Sub Strand**	**Benchmark Concept and Skill**	**Practice Activities**
1. B	☐	Measurement	Find the area of a rectangle. Find the perimeter of a polygon.	Activities 1-6, 19
2. C	☐			
3. A	☐			
4. See Rubric	☐			
5. A	☐	Measurement	Demonstrate understanding that rectangles with the same area can have different perimeters. Demonstrate understanding that rectangles with the same perimeter can have different areas.	Activities 7-12, 19
6. A	☐			
7. B	☐			
8. See Rubric	☐			
9. C	☐	Measurement	Make change in a variety of ways.	Activities 13-19
10. A	☐			
11. C	☐			
12. See Rubric	☐			

Rubrics for Items 4, 8, and 12 are on the following page 11.

Student Name:

RUBRIC FOR SCORING ITEM 4 ABOVE	
SCORE	**DESCRIPTION**
3	• Drew a picture of a rectangular garden and correctly labeled length as 6 and width as 4. • Explained why Niko does not have enough fencing. For example, the perimeter is 20 but Niko only has 18 feet of fencing. • Identified the difference between the garden perimeter and fencing as 2 ft.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 8 ABOVE	
SCORE	**DESCRIPTION**
3	• Drew or explained one possibility for the length and the width of one of the rooms. For example, one room could be 6 feet long and 4 feet wide. • Drew or explained the length and width of the other room. For example, the other could be 8 feet long and 3 feet wide. • Calculated the difference in perimeter between the two rooms. For example, the difference between 20 and 22 feet is 2 feet.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect

RUBRIC FOR SCORING ITEM 12 ABOVE	
SCORE	**DESCRIPTION**
3	• Identified the change Mike received as $2.77. • Identified least possible coins as 2 dollars, 3 quarters, and two pennies. • Identified change using only dimes, nickels, and pennies as 27 dimes, 1 nickel, and 2 pennies.
2	• Answered two parts correctly.
1	• Answered one part correctly.
0	• Response is incorrect