

## Content Strand Analysis Report -- Math 4

This report contains summary information showing how groups of students performed on multiple choice questions on the test. To help you in analyzing the results, instead of organizing the questions on the report the same as the order in which they appear on the test, they are grouped by subskill within Content Strand. The MC xx designates the Multiple Choice question number on the test. The description after this is the subskill description provided by CTB McGraw-Hill, the publishers of the test.

At the top of each page are some statistics to help you in interpreting the group's performance on the Key Objective related to the questions shown. These show how other (larger) groups of students performed on the Key Objective and thus provide a context in which to judge the performance of this group of students on questions which make up the subskills that comprise the Content Strand shown. This is a Content Strand Index score and is provided by CTB. The benchmarks shown here are the average of the Content Strand scores earned on the Key Objective shown for the group of students included in the named group (see below for a description of the groups). Since Content Strands are provided as a whole number between 1 and 100, we have provided the average as a number between 1 and 100, rounded to 2 decimal places.

This summary is intended to help you understand the importance of how well your students performed on the various questions on the test. The statistical information on this page provides a context in which to judge performance by showing how various groups of students performed. Remember that not all questions are of equal difficulty and not all students are expected to answer all questions correctly. Some questions are deliberately placed on the test that only the best students are expected to be able to answer correctly.

The body of the report provides information on the percent of students (expressed as a decimal; e.g.. 0.83 is 83%) in a particular group who successfully answered each question (the percent is based only on those students who attempted - that is, recorded an answer for - each question). The data for a particular question are on a single row of the report. The groups of students are columns on the report. This decimal expression of how many students answered a particular question correctly is often referred to as p-value or difficulty factor. The difficulty of a question is often measured by what percent of a particular population was able to answer it correctly.

The following is a summary of what comprises each group shown on this report:

- Regional Mean: All students in the region scored to date (see the number of students in the footer of each page).
- Level 2 Low: Only those students who earned a scale score on the test of exactly 622.  
This is the lowest score possible to be in level 2 (also referred to as level 2 cutpoint).
- Level 2 High: Only those students who earned a scale score on the test of exactly 636.  
This is a score that places the student just into the top half of those who earned level 2.
- Level 3 Low: Only those students who earned a scale score on the test of exactly 650.  
This is the lowest score possible to be in level 3 (also referred to as level 3 cutpoint).
- Level 3 High: Only those students who earned a scale score on the test of exactly 676.  
This is a score that places the student just into the top half of those who earned level 3.
- Level 4 Cutpoint: Only those students who earned a scale score on the test of exactly 702.  
This is the lowest score possible to be in level 4.
- Your District: All students in your district scored to date (see footer).
- Your BOCES: All students in your BOCES scored to date.

"School and district aggregated results are embargoed until the Commissioner's press conference, which is scheduled for June 2008. These data cannot be discussed at public meetings or released to the public or the media until after the Commissioner's press conference. Superintendents and principals are encouraged to use the results to make programmatic decisions for individual students. Results for students can be shared with teachers and parents. Individual Student Reports will be produced as they were last year and will be available through nySTART in June."

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 1: Number Sense/Operations	76.21	30.76	42.10	55.24	79.30	92.63	67.93	68.01	73.75
MC 18 - 1A Check reasonableness of an answer by using estimation.	.68	.25	.33	.41	.66	.88	.45	.45	.61
MC 19 - 1B Compare and order unit fractions (1/2, 1/3, 1/4) and find their approximate locations on a number line.	.60	.16	.27	.32	.57	.80	.41	.41	.55
MC 7 - 1C Develop an understanding of the properties of odd/even numbers as a result of multiplication.	.69	.43	.47	.45	.67	.83	.64	.64	.69
MC 4 - 1D Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000.	.75	.24	.25	.43	.84	.97	.61	.61	.73
MC 8 - 1E Develop fluency with single digit multiplication facts.	.85	.20	.59	.73	.93	.99	.80	.80	.84
MC 23 - 1F Explore equivalent fractions (1/2, 1/3, 1/4).	.59	.16	.20	.33	.51	.82	.46	.46	.54
MC 28 - 1F Explore equivalent fractions (1/2, 1/3, 1/4).	.42	.08	.04	.07	.29	.65	.29	.29	.36
MC 25 - 1G Interpret the meaning of remainders.	.63	.11	.21	.26	.58	.89	.51	.51	.58
CR 36 - 1G Interpret the meaning of remainders.	.62	.08	.12	.30	.59	.91	.50	.50	.58
MC 1 - 1H Read and write whole numbers to 10,000.	.93	.67	.79	.91	.95	.99	.93	.93	.93
MC 6 - 1H Read and write whole numbers to 10,000.	.88	.62	.75	.81	.90	.94	.87	.87	.89
MC 3 - 1I Round numbers less than 1,000 to the nearest tens and hundreds.	.87	.56	.64	.82	.90	.96	.82	.81	.85
MC 27 - 1J Select appropriate computational and operational methods to solve problems.	.81	.58	.52	.58	.85	.97	.78	.78	.80
MC 13 - 1K Understand the place value structure of the base ten number system: 10 ones = 1 ten; 10 tens = 1 hundred; 10 hundreds = 1 thousand; 10 thousands = 10 1 thousands.	.76	.28	.47	.53	.79	.89	.68	.69	.73
MC 15 - 1L Understand, use, and explain the associative property of multiplication.	.82	.42	.58	.68	.86	.93	.74	.74	.81
CR 48 - 1L Understand, use, and explain the associative property of multiplication.	.84	.49	.54	.69	.86	.96	.80	.80	.83

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 1: Number Sense/Operations	76.21	30.76	42.10	55.24	79.30	92.63	67.93	68.01	73.75
CR 31 - 1M Use a variety of strategies to add and subtract numbers up to 10,000.	.85	.34	.51	.73	.93	.97	.82	.82	.84
CR 46 - 1N Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders).	.69	.10	.19	.35	.76	.94	.66	.66	.68
CR 32 - 1O Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping).	.77	.18	.33	.57	.84	.94	.61	.61	.72
CR 40 - 1O Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping).	.78	.26	.29	.58	.85	.96	.67	.68	.76
MC 9 - 1P Use a variety of strategies to solve multiplication problems with factors up to 12 x 12.	.89	.57	.73	.84	.95	.98	.81	.81	.88
CR 44 - 1P Use a variety of strategies to solve multiplication problems with factors up to 12 x 12.	.78	.24	.49	.64	.84	.92	.70	.70	.75
MC 11 - 1Q Use multiplication and division as inverse operations to solve problems.	.87	.42	.56	.74	.94	.99	.86	.85	.86
CR 37 - 1Q Use multiplication and division as inverse operations to solve problems.	.84	.35	.59	.68	.93	.98	.77	.77	.81

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 2: Algebra	72.50	25.97	38.68	51.91	74.30	89.44	63.40	63.46	69.95
MC 17 - 2A Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box.	.72	.19	.31	.41	.77	.96	.51	.51	.65
CR 43 - 2A Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box.	.83	.27	.51	.73	.87	.95	.79	.79	.84
CR 38 - 2B Describe, extend, and make generalizations about numeric (+,-,x,÷) and geometric patterns.	.60	.08	.22	.36	.58	.80	.42	.43	.56
CR 45 - 2B Describe, extend, and make generalizations about numeric (+,-,x,÷) and geometric patterns.	.62	.08	.15	.23	.60	.88	.45	.45	.57
MC 29 - 2C Evaluate and express relationships using open sentences with one operation.	.62	.23	.28	.38	.56	.83	.53	.52	.59
MC 14 - 2D Use the symbols <, >, = (with and without the use of a number line) to compare whole numbers and unit fractions (1/2,1/3,1/4,1/5,1/6, and 1/10).	.91	.56	.74	.83	.95	.99	.90	.90	.90
MC 21 - 2E Use the symbols <, >, =, and <> (with and without the use of a number line) to compare whole numbers and unit fractions and decimals (up to hundredths).	.76	.30	.37	.58	.82	.91	.74	.74	.76

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 3: Geometry	76.93	46.58	54.73	63.04	77.54	89.71	70.47	70.53	75.02
CR 41 - 3A Find perimeter of polygons by adding sides.	.90	.77	.84	.88	.92	.97	.90	.90	.88
MC 5 - 3B Find the area of a rectangle by counting the number of squares needed to cover the rectangle.	.85	.78	.72	.77	.83	.93	.82	.82	.82
MC 10 - 3C Identify and name polygons, recognizing that their names are related to the number of sides and angles (triangle, quadrilateral, pentagon, hexagon, and octagon).	.74	.39	.42	.52	.73	.90	.56	.56	.70
MC 22 - 3D Identify congruent and similar figures.	.81	.57	.69	.71	.84	.90	.72	.73	.82
MC 30 - 3E Identify points and line segments when drawing a plane figure.	.74	.35	.43	.59	.76	.90	.55	.55	.71
CR 35 - 3F Part A 4.G03: Find perimeter of polygons by adding sides; Part B 4.G04: Find the area of a rectangle by counting the number of squares needed to cover the rectangle.	.66	.27	.35	.44	.64	.84	.50	.51	.63

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 4: Measurement	68.63	29.95	37.22	44.62	68.28	86.60	60.33	60.44	65.68
MC 24 - 4A Calculate elapsed time in hours and half hours, not crossing A.M./P.M.	.65	.22	.25	.39	.64	.84	.53	.53	.59
CR 34 - 4B Know and understand equivalent standard units of length:12 inches = 1 foot, 3 feet = 1 yard.	.62	.03	.08	.23	.64	.92	.52	.52	.57
CR 33 - 4C Make change, using combined coins and dollar amounts.	.70	.32	.46	.48	.72	.85	.68	.68	.69
CR 42 - 4C Make change, using combined coins and dollar amounts.	.71	.18	.31	.41	.78	.91	.68	.68	.71
MC 20 - 4D Select tools and units (customary and metric) appropriate for the length being measured.	.57	.27	.29	.28	.53	.69	.43	.44	.45
MC 16 - 4E Select tools and units appropriate to the mass of the object being measured (grams and kilograms).	.71	.49	.53	.59	.65	.79	.70	.70	.72
MC 2 - 4F Use a ruler to measure to the nearest standard unit (whole, 1/2 and 1/4 inches, whole feet, whole yards, whole centimeters, and whole meters).	.98	.97	.97	.96	.99	1.00	.99	.99	.99

	Regional Mean	Level 2 Low	Level 2 High	Level 3 Low	Level 3 High	Level 4 Cutpoint	Your District	Your Building	Your BOCES
Content Strand 5: Statistics/Probability	70.02	41.47	48.76	55.35	68.73	82.89	63.91	63.98	67.96
MC 26 - 5A Develop and make predictions that are based on data.	.46	.11	.10	.11	.37	.71	.34	.34	.43
MC 12 - 5B Formulate conclusions and make predictions from graphs.	.54	.65	.48	.46	.35	.59	.61	.61	.54
CR 39 - 5C Represent data using tables, bar graphs, and pictographs.	.73	.38	.46	.56	.73	.85	.64	.64	.69
CR 47 - 5C Represent data using tables, bar graphs, and pictographs.	.86	.63	.67	.76	.89	.97	.87	.86	.85