

Grade Four Numeracy: An Item-level Analysis - Multiple Choice (Provincial Level)

British Columbia

All Schools

FSA May/2007

FSA population (N=39,148)

Provincial FSA Item-Level Response Reports include data for all BC students in Grade 4 who wrote a particular FSA test. Both public and independent schools are included. The FSA 2007 provincial Item-Level Response Reports display the proportion of students who made errors on each test item and a description of the misconception.

Since the English and French versions of the FSA Numeracy tests are identical, the Item-level Analysis – Multiple Choice provincial report includes all students.

Content Area	Item #	Number of Students who Responded to the Item	Percentage of Students who Answered Incorrectly	Specific Curricular Aspect that Needs Attention [$>20\%$ selected incorrect response]
Number	1	39013	44	<ul style="list-style-type: none"> In a word problem involving division, students made a calculation error.
Number	2	38925	36	*
Number	4	38503	44	<ul style="list-style-type: none"> In a word problem involving estimation with division, students incorrectly rounded the divisor down instead of up.
Number	5	38901	28	*
Number	10	38825	59	<ul style="list-style-type: none"> Students rounded a number to the nearest 100 when asked to round to the nearest 1000
Number	11	38540	64	<ul style="list-style-type: none"> In a money problem involving multiplication and division, students multiplied correctly but left out the division.
Number	12	38489	51	<ul style="list-style-type: none"> Students left one value off the answer in a word problem involving subtraction followed by division

Number	13	38538	33	*
Number	18	37492	50	<ul style="list-style-type: none"> Students made one or more errors in using estimation to find the sum of numbers
Number	19	37058	60	<ul style="list-style-type: none"> Students did not include one of the conditions needed for two numbers that summed to 36 Students misread the information given about two numbers that summed to 36
Number	22	39121	19	N/A
Number	26	38268	57	<ul style="list-style-type: none"> In a two-step money problem involving subtraction and division, students made a calculation error.
Number	28	38939	51	*
Number	30	38742	47	<ul style="list-style-type: none"> In a money problem involving division with a remainder that asked how many units could be purchased with given amount, students rounded the remainder up rather than down.
Number	31	38792	35	*
Number	32	38947	45	<ul style="list-style-type: none"> Students made a mistake in a money problem by finding the cost of one, rather than two items, before finding the amount of change to be received.
Number	37	37930	58	<ul style="list-style-type: none"> In a question involving division with a remainder students made a calculation error.
Number	39	38023	35	*
Number	40	37756	51	<ul style="list-style-type: none"> In a question involving estimation with multiplication by rounding, students rounded one number down and the other up instead of

				both of them up.
Patterns and Relations	6	39016	46	<ul style="list-style-type: none"> • Students just selected the next whole number following the last term in a pattern of numbers rather than using the pattern to generate the next term. • Students incorrectly generated the next term in a pattern of numbers by looking only at the relationship between the last two numbers listed. To identify the pattern it was necessary to look at all of the numbers listed.
Relations	9	38893	44	*
Patterns and Relations	16	37993	52	*
Patterns and Relations	24	38718	63	<ul style="list-style-type: none"> • In a money problem involving the sum of terms in a number pattern, students made an error either in generating the terms or in finding their sum.
Patterns and Relations	25	38955	51	<ul style="list-style-type: none"> • Students found the term preceding the correct one in a number sequence.
Patterns and Relations	27	39046	37	<ul style="list-style-type: none"> • In a word problem involving ordering events, students were unable to find the correct order.
Patterns and Relations	33	38737	31	*
Patterns and Relations	38	38082	38	<ul style="list-style-type: none"> • Students were unable to determine a pattern of objects and then calculate how many of one pattern there were in total
Shape and Space	7	38655	82	<ul style="list-style-type: none"> • Students found the wrong final term in a number pattern
Shape and Space	8	38586	45	<ul style="list-style-type: none"> • Students made an error in adding hours and

				minutes in a question involving time of day and the amount of time to complete a task
Shape and Space	15	37835	42	<ul style="list-style-type: none"> Students incorrectly divided millilitres into litres.
Shape and Space	17	37539	51	<ul style="list-style-type: none"> In a money problem involving conversion from grams to kilograms and multiplication, students made an error in converting grams to kilograms before multiplying.
Shape and Space	20	36864	57	<ul style="list-style-type: none"> In a question involving the duration of time in hours and minutes from a starting point in the morning to a finishing time in the afternoon, students made an error in determining the number of minutes.
Shape and Space	29	38939	52	<ul style="list-style-type: none"> In a question involving the perimeter of a figure formed by a number of rectangles that are placed together, students incorrectly added the perimeters of each rectangle.
Shape and Space	34	38534	55	<ul style="list-style-type: none"> Students added, rather than subtracted, a time interval on a 12-hour clock
Shape and Space	36	38042	64	<ul style="list-style-type: none"> Students made one or more calculation errors in a two-step money problem involving change from a purchase.
Shape and Space	41	37571	40	*
Statistics and Probability	3	38995	36	*
Statistics and Probability	14	38376	33	*

Statistics and Probability	23	39065	93	<ul style="list-style-type: none"> Students were unable to interpret a pattern in a table to determine the likelihood of an event.
Statistics and Probability	35	38578	44	*

Note: '**N/A**' represents that there were fewer than 20% of the students who incorrectly answered the item; '*' represents that there was no specific curricular aspect that needed attention since each of the incorrect answers has been chosen by less than 20% of the students.