

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

British Columbia

All Schools

FSA May/2005

FSA population (N=47,542)

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 2004 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	43306	20	*
Number	2	42491	83	<ul style="list-style-type: none"> Students incorrectly rounded up on one of two numbers prior to using estimation with multiplication.
Number	6	43219	42	<ul style="list-style-type: none"> Students didn't correctly estimate the number of square units covered by an irregular shaped figure
Number	8	42811	35	*
Number	17	41367	24	*
Number	18	40977	38	*
Number	19	40468	50	*
Number	20	40319	31	<ul style="list-style-type: none"> Students made an error in finding a fraction to represent a part of a whole in a money problem.
Number	23	42602	35	*
Number	27	42816	25	*

Number	29	42981	20	*
Number	35	42369	34	*
Number	36	42380	41	<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	41980	35	*
Number	39	41780	44	<ul style="list-style-type: none"> In a picto-graph, students confused the number of pictures and the number of objects each picture represented, with the number one type of object was as a fraction of the whole.
Number	40	41714	36	*
Patterns and Relations	9	42874	33	*
Patterns and Relations	12	42750	35	*
Patterns and Relations	13	41962	38	*
Patterns and Relations	14	41796	58	<ul style="list-style-type: none"> Students found the mass needed to balance two sets of objects but left one step out of the problem.
Patterns and Relations	25	42693	34	*
Patterns and Relations	26	42379	55	<ul style="list-style-type: none"> Students just multiplied two numbers in the stem when finding the sum of n terms in a number series.
Patterns and Relations	30	42731	50	<ul style="list-style-type: none"> Students found the term preceding the correct one in a number sequence.
Patterns and Relations	38	41945	48	<ul style="list-style-type: none"> Students weren't able to find the relationship between successive terms in a number pattern.

Shape and Space	3	43258	9	N/A
Shape and Space	4	43125	61	<ul style="list-style-type: none"> Students used the wrong metric unit in the answer to a word problem involving multiplication and the conversion of centimetres to metres
Shape and Space	5	42832	42	*
Shape and Space	7	42826	37	<ul style="list-style-type: none"> Students made an error in calculating the cost of three items before subtracting the cost from a 20-dollar bill.
Shape and Space	10	42617	38	*
Shape and Space	11	42535	40	*
Shape and Space	16	41048	63	<ul style="list-style-type: none"> Students likely completed the first step in a money problem involving ratio, by calculating only the unit price per kilogram. Students likely made an error in converting metric measures of mass to obtain the unit price per kilogram.
Shape and Space	24	43085	44	<ul style="list-style-type: none"> Students incorrectly identified a rectangular shaped object (with a different length and width) as a square.
Shape and Space	28	42686	47	<ul style="list-style-type: none"> Students made an error in a 2-step problem which involved determining (to the nearest hour) the number of hours in a given time interval and then multiplying that number by a certain number of events for each hour.
Shape and Space	31	42431	46	<ul style="list-style-type: none"> Students added, rather than subtracted, a time interval on a 12-hour clock

Shape and Space	33	42340	43	*
Shape and Space	41	41401	59	<ul style="list-style-type: none"> Students weren't able to determine the time interval when given a start time and a stop time using the 12-hour clock.
Statistics and Probability	15	41371	47	*
Statistics and Probability	22	43129	19	N/A
Statistics and Probability	32	42646	37	*
Statistics and Probability	34	42782	7	N/A

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.