

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

British Columbia All Schools

FSA May/2004

FSA population (N= 50,836)

Provincial FSA Item-Level Response Reports include data for all BC students in Grade 7 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	46125	51	<ul style="list-style-type: none"> Students found the percent discount for a sale on the final price rather than on the original price
Number	2	46288	40	<ul style="list-style-type: none"> Students found a percent of the wrong number
Number	4	45796	36	<ul style="list-style-type: none"> Students were unable to answer a money problem correctly that involved addition, division and multiplication
Number	6	46383	67	<ul style="list-style-type: none"> In a multi-step word problem, students did not complete any of the steps correctly In a multi-step word problem, students found how many pairs of an item are needed rather than how many actual items are needed
Number	8	46012	63	<ul style="list-style-type: none"> Students were unable to estimate a fraction as part of a whole, using a ratio of two numbers. Students used the wrong numbers in estimating a fraction as a ratio with one number as a part of a whole.
Number	9	46300	30	*
Number	11	45977	57	<ul style="list-style-type: none"> In a time-distance problem involving the 24-hour clock, students made an error in finding an end time when adding minutes to a start time
Number	13	46145	31	*

Number	22	46012	38	<ul style="list-style-type: none"> In a word problem involving percent, students multiplied the total by the wrong percentage
Number	23	45894	34	*
Number	28	46134	33	*
Number	30	45878	36	*
Number	32	45700	51	<ul style="list-style-type: none"> Students made an error in a word problem involving multiplication and conversion from grams to kilograms
Number	34	45831	57	<ul style="list-style-type: none"> Students correctly found the number of time intervals between two times on a 24-hour clock but left out the next step in the question.
Number	35	45972	27	*
Patterns and Relations	3	46377	36	<ul style="list-style-type: none"> Students were unable to select an algebraic expression that was described in words
Patterns and Relations	16	45476	47	<ul style="list-style-type: none"> Students were not able to find the number of objects in the nth arrangement of a set of objects arranged in a pattern
Patterns and Relations	20	44898	38	*
Patterns and Relations	25	46077	40	<ul style="list-style-type: none"> Students misread information given in a cost-solving problem and used the wrong operation and numbers.
Patterns and Relations	26	45801	52	<ul style="list-style-type: none"> Instead of using a ratio to find a fraction of a number, students divided one of the two numbers in a ratio into that number.
Patterns and Relations	38	45843	43	<ul style="list-style-type: none"> Students were not able to find the relationship between successive numbers in a pattern
Space and Shape	7	46441	43	<ul style="list-style-type: none"> Students were unable to use unit pricing to determine the best buy from a number of packages of a product
Space and Shape	10	46138	66	<ul style="list-style-type: none"> Students estimated the entire perimeter of a circle rather than a half circle as required in the question.
Shape and Space	12	46107	38	*
Space and Shape	14	44958	60	<ul style="list-style-type: none"> Students didn't use the least common multiple correctly to find the duration of a time cycle
Shape and Space	18	45327	54	<ul style="list-style-type: none"> Students were not able to find the duration of

				time between starting and end points on the 24-hour clock
Shape and Space	19	44934	59	<ul style="list-style-type: none"> Students found the perimeter of the labeled sides only in an irregular shape rather than its area Students found the perimeter, rather than the area, of an irregular shape
Space and Shape	29	45648	51	<ul style="list-style-type: none"> In a word problem involving the circumference of a circle and revolutions, students didn't multiply by π In a word problem involving the circumference of a circle and revolutions, students used the radius rather than the diameter of the circle in the calculation
Shape and Space	31	45394	59	<ul style="list-style-type: none"> Students found the diameter rather than the radius of a circle
Shape and Space	33	45812	76	<ul style="list-style-type: none"> In a word problem involving perimeter and area of a quadrilateral, students selected an answer that didn't meet conditions
Space and Shape	36	45187	52	<ul style="list-style-type: none"> Students didn't know that 1L of capacity is equivalent to 1000 cm³ of volume
Space and Shape	39	45442	52	<ul style="list-style-type: none"> Students completed the first step in a two-step problem involving mass but did not complete the second step
Space and Shape	41	45543	42	<ul style="list-style-type: none"> Students made a mistake in finding the duration of time between two given times on a 12-hour clock.
Statistics and Probabilities	5	46462	40	<ul style="list-style-type: none"> Students just added, rather than multiplying, the total number of different kinds of objects in each of two different categories in trying to find the number of possible combinations
Statistics and Probabilities	15	45683	43	<ul style="list-style-type: none"> Students just summed the number of different items in each of three categories in an attempt to find how many combinations of different items from three categories were possible
Statistics and Probabilities	17	45444	47	*
Statistics and Probabilities	24	46107	25	*

Statistics and Probabilities	27	46114	29	*
Statistics and Probabilities	37	45829	55	<ul style="list-style-type: none"> Students didn't know that the probability of a random event is equal to the number of possible favourable outcomes divided by the total number of possibilities
Statistics and Probabilities	40	45612	32	*

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.