

## Grade 7 Numeracy: An Item-level Analysis -- Written Response Questions (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 – Written Response Questions provincial report includes all students.

Content Area	Item #	Number(%) of Respondents	Number(%) of Score0	Number(%) of Score1	Number(%) of Score2	Number(%) of Score3	Number(%) of Score4
Patterns and Relations	21	44,190 (100%)	4417 (10%)	4165 (9%)	9527 (22%)	10140 (23%)	15941 (36%)
Number	42	44,773 (100%)	2535 (6%)	3081 (7%)	9822 (22%)	10268 (23%)	19067 (43%)

### Score Description

**Score 0** – did not answer or made no logical attempt

**Score 1** – made a logical start beyond just copying data, or tried to reach a sub-goal but didn't, or started an inappropriate strategy but didn't carry out.

**Score 2** – successfully reached a sub-goal but went no further, or gave the correct answer with no work shown, or used a correct strategy but did not carry it out far enough or carried out an inappropriate strategy and obtained incorrect answer, but work showed some understanding of the problem.

**Score 3** – used appropriate strategies with incorrect or no answer, or gave the correct answer with only some evidence of appropriate strategies, or implemented the appropriate strategies but did not incorporate/ignored a condition of the question

**Score 4** – appropriate strategy with correct answer or appropriate strategy with solution including only a copy or computation error.

## **General Comments - Grade 7 Numeracy Written Response Questions**

### **Student Strengths**

Educators on the marking committee have identified areas of student strengths in Numeracy.

When solving a Patterns and Relations problem, students were able to find patterns and show their work. Students were able to create organized lists effectively in problem solving.

When solving a Number problem, students were able to show their work using organized lists effectively.

### **Implications for Instruction**

The marking committee has offered the following suggestions for instruction to address the areas requiring improvement. Students should learn to:

- Organize information using appropriate strategies, and stay with it
- Understand value/language of coins, i.e., dime = 10¢; nickel = 5¢; quarter = 25¢, penny = 1¢; loonie = \$1; toonie = \$2
- Do more multi-step problem solving, especially combination problems

The committee also suggested that students read the questions carefully. Students need modelling and practice in problem solving.