

# Mathematics



PROVINCIAL ASSESSMENT GUIDELINES

Intermediate Administration Guide for  
**Teachers**

# Table of Contents

<u>Administration Schedule</u> .....	2
<u>Introduction</u> .....	2
<u>Confidentiality Information</u> .....	3
<u>Format of the Assessment</u> .....	4
<u>Student Materials</u> .....	5
<u>Exemption and Accommodation Policy</u> .....	6
<u>Provision for Exemption\Accommodation Policy</u> .....	10
<u>Exemption and Accommodation Form</u> .....	14
<u>Teacher's Role In The Assessment</u> .....	15
<u>Bringing it together</u> .....	17
<u>Teacher Administration Policy and Procedures</u> .....	19
<u>Tips For Answering Multiple-Choice Questions</u> .....	22
<u>After the Assessment</u> .....	23
<u>Completing the Bubble Sheets</u> .....	25

## To the Teacher

### Administration Schedule

The Provincial Assessment for Intermediate Mathematics is to be conducted in one session.

The intent of the Department of Education Provincial Assessments is to learn as much about each student's learning as possible. Therefore **the assessments are not timed tests**. Although time lines are supplied, they are to assist in planning the testing session, not to restrict student writing time. Setting 2 hours aside should be sufficient for the test.

### Introduction

The assessment was designed to assess the effectiveness of the implementation of the Mathematics program as outlined in *Mathematics Grade 9 – A Curriculum Guide, Interim Edition 2010*. The assessment was developed to assess the knowledge and skills attained by students at the end of Grade 9. Items on this assessment correspond to learner outcomes outlined in the curriculum guide and are distributed according to the table of specifications. The table of specifications was developed by an intermediate mathematics working group.

The main purpose of this assessment is to provide the Department of Education, school districts and schools with information on the level of performance of Newfoundland and Labrador students in Mathematics at the end of Grade 9. The assessment will enable teachers, administrators, districts, and the Department of Education to:

- ✓ determine student achievement in relation to curriculum outcomes
- ✓ use information gathered to improve student learning
- ✓ use information gathered to improve teaching effectiveness
- ✓ chart student progress, over time and
- ✓ offer a comprehensive data set and analysis supporting school growth and improvement.

Results can be used to revise programs and to help school districts and schools focus in-service efforts. Since one assessment cannot thoroughly measure all knowledge and skills attained, districts and schools are encouraged to consider results on this assessment as one component in an overall evaluation where information on student achievement is gathered from a number of sources.

Students will be encouraged to use the extra space in the booklet for workings.

The strands of the Mathematics curriculum which will be assessed are:

- **Number**
- **Patterns and Relations**
- **Shape and Space**
- **Statistics and Probability**

## **IMPORTANT**

**Provincial Assessments are the property of the Department of Education.**

**THERE SHALL BE NO COPYING, SCANNING, REPLICATING, TAKING NOTES, SHARING OR DUPLICATION OF THE PROVINCIAL ASSESSMENTS IN ANY MANNER.**

**ALL Student Work Books for the MATHEMATICS Provincial Assessment shall be RETURNED to the Department of Education as soon as possible following the administration of the Provincial Assessment.**

**Each booklet shall be identified with a unique number. This number is specific to your school.**

***Please ensure each teacher is made aware of this CONFIDENTIALITY regulation for the provincial assessments.***

**The Provincial Assessments are confidential, and all booklets and related materials shall be returned to the Department of Education and no information concerning its contents are to be communicated or replicated in any manner.**

## Format of the Assessment

The assessment is a pencil and paper test and includes items based on Grade 9 Mathematics outcomes and will measure achievement as outlined by the *Mathematics Grade 9 – A Curriculum Guide, Interim Edition 2010*.

Due to the developmental nature of Mathematics curricula, teachers will be able to trace items back to Grades 7 and 8, but there is no effort to key items directly to Grade 7 or 8 outcomes.

**Calculators, rulers and manipulatives are permitted for the complete assessment.** Graphing calculators are not permitted.

The assessment has a total score of 50 and is composed of:

**Section 1**      25 selected response questions (multiple-choice). **Value: 25**

**Section 2**      Constructed response questions requiring students to write or draw an answer. **Value: 25** (The value of each item will range from 1, 2 or 3 marks and partial marks will be awarded for each question).

**Time:**          **Approximately 2 hours.** If students require more time to complete the assessment, use teacher discretion.

The constructed response questions and multiple-choice questions will generally occur in increasing order of complexity along a cognitive continuum by strand. Questions will generally occur in the order of:

- ✓ K/C (Knowledge/Comprehension)
- ✓ A/A (Application/Analysis)
- ✓ S/E (Synthesis/Evaluation)

The questions are also organized in sequential order of the units in which students have covered the outcomes. For example: all selected response items from unit 1 will be grouped together.

Any information with regards to formulas or conventions such as shaded tiles are positive will be included in the question.

## Student Materials

### Required

- 2 pencils
- a ruler (or other straightedge that is graduated in a regular way),
- a quality eraser are required for all components of the assessment.

### Permissible

- Manipulatives may be available to students during any aspect of the assessment as they would normally be during instruction.
- A simple 4-function or scientific calculator (graphing calculators are not permitted).

Questions in the assessment may afford opportunities where the use of a calculator may help and does not compromise assessing the outcome. No questions require the use of a calculator and a calculator would not normally be necessary though students are welcome to use a calculator as they would in a normal classroom setting.

## EXEMPTION / ACCOMMODATION POLICY

Exemptions and Accommodations will be completed and recorded at the school level. Administrators/teachers should complete individual student EXEMPTION or ACCOMMODATION forms and place completed forms in the student's cumulative file. Completed and signed Exemption Forms and accompanying documentation (e.g., IEP, assessments, etc) should be placed in student's cumulative file. Exemption / Accommodation Forms should **NOT** be sent to the Department of Education, but should be placed in the student's cumulative file. A list of all student names who have been exempted (either partially or fully) must be forwarded to the Department of Education (attention Norma Barron) by May 1<sup>st</sup>, using the **SUMMARY FORM**. All documentation for Exemption/ Accommodation should be in the student's cumulative file. Only the **SUMMARY FORM** alone should be sent to the Department.

Following the enclosed guidelines, **ALL** exemptions and accommodations will be school-based decisions and shall be considered approved. The Department of Education may randomly request exempted student names from schools and review the EXEMPTION form to ensure all criteria are in place for the practice of consistency throughout the province. All accommodations listed on the ACCOMMODATION Form will be approved and not reviewed by the Department of Education. **UNDER NO CIRCUMSTANCE** may accommodations be used that are **NOT** listed on the **ACCOMMODATION** form (regardless of special considerations in the student's IEP). Any special accommodation requests which are not listed on the ACCOMMODATION form must have prior written permission from the Department of Education (contact Norma Barron).

<p><b>NOTE:</b> Provincial assessment data returned to schools will be similar to past practice. All exemption/unknown data will also be recorded and presented. <b>ALL</b> data will be presented, which will include exemption rate by school/district/province. This information will give a more complete picture of the entire student body as opposed to just those who completed the assessment. While exemption decisions rest with the school, all exemptions will be recorded and reported by school, district and province.</p>
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## FOR THE TEACHER

### INTERMEDIATE EXEMPTION / ACCOMMODATION

All students have the legal right to an assessment. Pursuant to Section 117 (b) (vi) of the *School's Act 1997* each student will engage in student evaluation directives mandated by the Department of Education. However, it is recognized that some students need special accommodations while others may not be able to participate in parts, or the entire, provincial assessment. Documentation is required to note these accommodations or exemptions.

Students who are following an Alternate Course that removes them from the prescribed mathematics curriculum, previously referred to as Pathway 4, or an Alternate (Functional) Curriculum, previously referred to as Pathway 5, will be eligible for an exemption. Place the EXEMPTION form in the student's cumulative file.

Students on Modified Prescribed Curriculum formerly referred to as Pathway 3 and students following an alternate course under the Modified or Alternate Curriculum category may be considered for an exemption from writing the provincial assessment. NOTE: Students who have supports are often able to participate in the assessment with a scribe for reading the questions, or narrate answers with a scribe, or have work transcribed for the constructed response items. For mathematics, ALL students who are following the prescribed curriculum with supports shall complete the assessment. Students on Modified Prescribed, previously Pathway 3, and Alternate Course, previously referred to as Pathways 4, may be considered for a full exemption.

NOTE: Students who are on Alternate Program will participate in the assessment with necessary accommodations such as a scribe for reading the questions, or narrate answers with a scribe, or have work transcribed for the constructed response items. For mathematics, ALL students with accommodations shall complete the assessment.

The Intermediate Mathematics Assessment, as previously indicated, will include all Grade 9 students including French Immersion students. The only exception is those students who are eligible for an exemption. In all cases, the exemption or accommodation must be completed at the school level and placed in the student's cumulative file for future reference. School, district, and provincial results will include the achievement levels of all students; however, the names of individual students will not be published in any public report.

**Documentation will be necessary and each student's needs shall be considered individually.** The principal, in consultation with the IEP team, will make the necessary recommendations regarding exemptions and accommodations, which must be recorded on the appropriate forms, signed, and placed in the student's cumulative file for future reference.

All students should participate in the Intermediate Assessment. For those students who are performing below the level expected for the end of intermediate, regardless of whether there are supports, the results of the assessment reliably indicate performance level. Assessment and accountability are necessary for all students. Including students with exceptionalities in provincial assessments is critical to providing meaningful and useful information about their performance as well as improving educational opportunities for these students.

In addition, exemptions may also be given in the case of serious illness, sudden bereavement, or other unusual circumstances. The principal, in consultation with the teacher and parents, should make the recommendation if the student needs an exemption. This exemption shall be communicated to the Department of Education.

Every student has the legal right to an assessment and schools have a legal obligation to assess students. **Documentation is necessary for an exemption and each student's need should be considered individually.**

The documentation should include:

**Mathematics** - a copy of the alternate courses/curriculum or modified course must be on file. It is important to know that outcomes/courses are being retained, changed, or deleted.

Please remember, a parent cannot simply "sign away" their child's right to an assessment if they do not wish to have their child write the assessment. The assessment is like any learning activity in the school and is not optional. If the student attends school on the day of the assessment, and does not meet the criteria for exemption, then he/she shall be expected to participate in the assessment. If the student has demonstrated the ability to do the assessment, then an EXEMPTION shall NOT be considered. If a parent refuses to have their child participate in the provincial assessment, this is not an approved exemption and should be discussed with principal/teacher. Exemption and Accommodation forms should be completed by May 1. The completed **SUMMARY** form should be forwarded to the Department of Education by May 1. Following the enclosed guidelines ALL exemptions and accommodations will be a school-based decision and shall be considered approved. Teachers and administrators can then refer to the forms when consulting with the Department.

## PROVISIONS FOR EXEMPTIONS AND ACCOMMODATIONS

### IMPORTANT NOTES:

***Scribing*** is when students narrate (speak) their answers and the teacher writes (scribes) what the student dictates. This is permissible for the questions on the Mathematics assessment. It is acceptable for the teacher to write (scribe) the answer for the student as he/she speaks it. Students are assessed on their mathematical ability and not their writing ability.

***Transcribing*** is when the student writes, independently, without any assistance from the teacher. When the student is finished, due to legibility, the teacher rewrites (transcribes) what the student has written, in a legible form. In some instances, the student may have to read to the teacher what he/she has already written independently because of legibility. Again, this is not scribing, as the student has already written independently, with no assistance from the teacher, and is simply narrating their own already written work, which needs to be transcribed for legibility. Transcription should **ONLY** be used when a student cannot complete their work on a computer (using software such as Word, WordPerfect that correct spelling, grammar, etc. is **NOT** permissible. Software such as NotePad is acceptable).

**Reading of texts to students is permissible.** Sometimes in a student's IEP it is noted that tests and assignments may be read to students, this would be acceptable on the mathematics provincial assessment since we are not assessing student's reading comprehension but their proficiency in mathematics.

**Mathematics:** Scribing is permissible for both sections of the Mathematics provincial assessment if it is included as a provision in the student's IEP. Reading of the texts is permissible for both sections of the Mathematics Provincial Assessment if it is included as a provision in the student's IEP as the assessment is measuring student's proficiency in mathematics and not reading.

Once the exemptions have been documented and completed, the **SUMMARY FORM** should be completed, including the entire Grade 9 school enrollment (include all students in the building, even those to be exempted) as of April 30. The form should then be forwarded to the Department of Education (attention Norma Barron). All Exemptions and Accommodations shall be considered approved following the enclosed guidelines. Exemption/Accommodation Forms should be placed in the student's cumulative file for future reference.

**Exemptions for such things as poor attendance, parental objection, or non-cooperative students are NOT an acceptable provision for Exemption. Any exemptions required, beyond those listed in this document, must have prior written approval from the Department of Education – contact Norma Barron at [normabarron@gov.nl.ca](mailto:normabarron@gov.nl.ca).**

## Accommodations

Some students with special needs (receiving supports formerly referred to as pathway 2, 3, and/or 4) may require accommodations to participate in the assessment. These may already be in place for instruction and testing. **All accommodations must be delivered by a qualified teacher.** Student assistants are not permitted to administer accommodations. Accommodations may include:

- 1.) - **A quiet workplace away from the classroom for:**
  - a.) students with attentional difficulties who find it hard to concentrate
  - b.) students with attentional difficulties who may distract others.

**NOTE: All students should be in the classroom for directions and any introductory activities.** Only those students who cannot perform in the classroom setting should be removed to a small group or individual setting. This should be a minimal number of students, not the entire group of students who are receiving pathway supports.

When working in an alternate setting no additional supports, unless authorized by the Department of Education, should be given to students.

- 2.) - **Use of assistive technology** (e.g., NotePad, Dragon, Naturally Speaking). **Use of spell or grammar checkers such as Word or WordPerfect is permitted.**

- 3.) - **Provision of text in a different format (e.g., large print, Braille):**

**NOTE:** To allow time for large colour booklets to be printed, please contact **Norma Barron** as soon as possible for this request at [normabarron@gov.nl.ca](mailto:normabarron@gov.nl.ca) .

- 4.) - **Verbatim scribing of responses**

**NOTE:** The scribe should write exactly what the student dictates. There can be no suggestions, editing, or proof-reading. Voice-to-text software may also be used.

**NOTE:** Many students with pathway supports are able to answer questions independently with the teacher transcribing illegible words (e.g., teacher writes the correct spelling, in ink, above the student's original work). Comprehension is being measured, not writing performance. When possible students should use NotePad or other software which do not correct for grammar, spelling, etc. (attach student responses to the booklet).

**5.) - Transcribing of responses:**

**NOTE:** The student should write independently. Afterward, the teacher, only if necessary, may write a transcription (i.e., the child's work, rewritten by the teacher, with accurate spelling) for the purpose of legibility, to include with the student's work. When possible students should use NotePad or other software which do not correct for grammar, spelling, etc. (attach student responses to the booklet).

**6.) - Verbatim reading of questions in math:**

**NOTE:** This will only apply to students who have verbatim reading as an accommodation in their IEP. In this instance, only words can be read by the teacher. Numerals, equations, symbols and pictorial representations have to be read by the student.

For example, in the question:

Ask students to identify which of the following are perfect squares:

0.49, 4.9, and 0.0049.

The teacher may not read the numerals 0.49, 4.9, and 0.0049. The teacher should read the words and pause before each numeral in order for the student to read the numerals.

**EXEMPTION AND  
ACCOMMODATION FORM**

**INTERMEDIATE  
MATHEMATICS**

**ACCOMODATION OR FULL EXEMPTION**  
**Intermediate Math Assessment**

<b>District</b>			<b>School</b>		

School: \_\_\_\_\_ Phone: \_\_\_\_\_

Principal's Name: \_\_\_\_\_ Email: \_\_\_\_\_

Student's Name: \_\_\_\_\_ Teacher's Name: \_\_\_\_\_

Mathematics:  Prescribed  Prescribed Modified  Alternate Course

Pre-requisite Program \_\_\_\_\_

Accommodation	Requirement
<input type="checkbox"/> Alternate Setting / Quiet Space .....	<input type="checkbox"/> Is an accommodation in this student's I.E.P.?
<input type="checkbox"/> Verbatim reading of questions in Mathematics portions .....	<input type="checkbox"/> Reading of text is in I.E.P.?
<input type="checkbox"/> Verbatim scribing of responses in Mathematics.	<input type="checkbox"/> Is an accommodation in this student's I.E.P.?
<input type="checkbox"/> Computer assistance (NotePad) .....	<input type="checkbox"/> Is an accommodation in this student's I.E.P.?
<input type="checkbox"/> Large Print or Braille .....	<input type="checkbox"/> Documentation of Visual Impairment is on file
Full Exemption	Requirement
<input type="checkbox"/> Full Exemption .....	<input type="checkbox"/> Alternate Functional Curriculum ONLY (formerly: Criteria C / Pathway 5 ONLY).
<input type="checkbox"/> Full Exemption .....	<input type="checkbox"/> Modified Curriculum is in I.E.P. and on file
<input type="checkbox"/> Full Exemption	<input type="checkbox"/> Alternate course is in IEP and on file

**AUTHORIZATION:** This form must be completed by the teacher, principal and parent and placed in the student's cumulative file by May 1.

\_\_\_\_\_  
 Parents/Guardian Signature

\_\_\_\_\_  
 Principal Signature

# Teacher's Role in the Assessment

## Information

- Familiarize staff, students, and parents with the nature of the assessment components (e.g., date of the assessment, question format, etc.).
- Be familiar with the relevant material in the *Information Booklet: Intermediate Mathematics*.
- Ensure students know they are permitted to use manipulative materials (which shall be made available to students during the test).
- Ensure students know they are permitted the use of a four-function or scientific calculator for a portion of the assessment though a calculator is not necessary for any question on the assessment.
- The Olive bubble sheets will be used for questions 1 to 25.
- Review the *Tips for Answering Multiple-Choice Questions* that is included on page 23 in this Administration Guide.
- Keep all test materials secure at all times.

## Pre-Assessment Activities

- The teacher should check with the principal to ensure that the assessment package is complete, with sufficient Student Booklets (one per student), orange machine-scorable student Bubble Sheets (one per student), CLASS HEADER sheet(s) (one per class), and a BUILDING HEADER sheet (one per school), when it arrives at the school.
- A copy of the *Tracking Form* should be completed one per class. This form should alphabetically list all students in the class (including those who did not participate) and will be included with the returned materials.
- Ensure that students have the necessary supplies prior to the beginning of the assessment: 2 sharpened HB pencils, a quality eraser, and access to a pencil sharpener, manipulatives, and an appropriate calculator as necessary.
- Test administrator(s) should review the Administration Guide in advance of the test date.
- If any students are writing the assessment outside of a main group setting, the Test Administration Procedure of the Administration Guide should be made available for each such setting. Where possible, students should remain with the class when directions are being explained and then proceed to their alternate setting to write the test.

## Administration Activities

- Administer the assessment according to all specified procedures contained in this guide. This includes ensuring that all students receive the general instructions as a single group at the same time.
- During or following the administration, **examine each student's Booklet and Bubble Sheet for complete and correct coding of their name, school, etc. This means both clear writing and correct shading beneath the writing where applicable.** Student narratives are produced using a scanner which reads only the shaded bubbles and not printed names so this is very important if names are to appear correctly on student narratives.

## Post-Assessment Activities

- **The student bubble sheet has a section called PATHWAY. Teachers are asked to shade in the bubble in the PATHWAY column to indicate the Pathway for Mathematics for students receiving a Pathway support.** For example, if a student is receiving Pathway 2 supports, colour in 2 in the PATHWAY column. This is important information, so that reporting on student achievement for those students receiving Pathways supports will be accurate.
- During, or immediately following the administration:
  1. Ensure the Bubble Sheet and Student Booklet are correctly labeled for each student and that the bubble sheet is placed inside the Student Booklet for collection and mailing. All student Test Booklets must also be returned to Department of Education.
  2. Complete the GRADE/CLASS HEADER sheet and *Student Tracking Form* for each class set of bubble sheets.
    - **Place Bubble Sheet inside of front cover of the Student Book.**
  3. Complete one BUILDING HEADER sheet only for the school.
- Assemble all pertinent materials verifying the contents with the principal who will send them to your District Regional Office c/o your Program Specialist (as per the *Mailing Materials* section of the Administration Guide).

*If there are any questions please contact:*

Norma Barron  
Division of Evaluation and Research  
Department of Education  
P.O. Box 8700  
St. John's, NL  
A1B 4J6  
Telephone (709) 729-1305, Fax (709) 729-3669  
Email: [normabarron@gov.nl.ca](mailto:normabarron@gov.nl.ca)

## BRINGING IT TOGETHER FOR TEACHERS

- ☉ It will be beneficial for teachers to familiarize themselves with the Administration Guide prior to each assessment period. Keeping ahead of the task will facilitate the process.
  - ☺ The components are linked to specific curriculum outcomes from Mathematics *Grade 9 Curriculum Guide 2010 Interim Edition*.
  - ☺ At the beginning of the testing session, it is important that you prepare the students for the test. You should tell them the purpose of the test, what we wish to find out from the results and how the results will help us learn more toward improving student achievement, and that their participation is important and confidential.
  - ☺ Helpful hints are included to provide clarity. They are important to read before administering the assessment.
  - ☺ The procedure provides the steps to follow for the assessment. Following the specified procedure will yield consistency in the administration of the assessment.
  - ☺ The last step in the procedure always refers to the accommodations that may be made for students with IEPs. Teachers must strictly adhere to these guidelines.
- ☉ Students have been provided with a student work booklet. They should fill in the personal information on the cover of their student work booklets. Print or post the number (or name if preferred) of the teacher/class, the name of the school and name of the school district on the chalkboard or suitable media for students to copy on their Student Booklet and their bubble sheet
- ☉ The assessment can be carried out at any time during the school day. This will be an individual school decision. The optimum learning time is often considered to be in the morning, so teachers may wish to include this in their decision.
- ☉ Students should have as much privacy as possible.
- ☉ Printing, handwriting, or computer writing is acceptable. Legibility is the primary concern as the assessment will be marked by educators who will not know the students.

- ☺ A Student Tracking Form is to be completed by the teacher as students finish the activities. Teachers should fill in the students' names by alphabetical order of last name and checkmark the appropriate blocks. **The tracking form is important for markers.**
- ☺ Mathematics Bubble Sheets are *Olive* in colour.
- ☺ The answer sheet has a section called "Pathway". Teachers are asked to shade just ***one*** bubble in the "Pathway" column to indicate the pathway support for Mathematics. For example, if a student receives Pathway 2 and 4 supports in Mathematics, then the "2" should be shaded in the Pathway Bubble. This is important information, so reporting on student achievement for those students receiving pathway supports will be accurate.
- ☺ Teachers are asked to check the bubble sheets to ensure students have shaded in the appropriate bubbles for their answers (and names where applicable). **The scanner records shaded bubbles, so accurate shading of bubbles is necessary to ensure correct reporting (e.g., students often "skip" a question and then shade the very next answer in the previously skipped bubble, thus causing an error in all subsequent answers/shading. So after the Provincial Assessment is administered, there should be 25 shaded bubbles).** Using a ruler for organization may help student shade in the correct bubbles. Teachers should remind students not to scribble or make unnecessary marks on these sheets. White erasers work best for changes. Questions with multiple bubbles shaded are scored as incorrect.
- ☺ Students need to write teacher name, school name, and district name on the appropriate lines of the bubble sheet (if this has not already been pre-shaded). This information is important for markers.
- ☺ This assessment includes all Grade 9 students, except those few with exemptions. It is important that all students complete the assessment within the regular classroom, unless an alternate setting is part of the adaptation for a student with an IEP.
- ☺ **IMPORTANT: TEACHERS PROVIDING SUPPORT TO STUDENTS IN AN ALTERNATE SETTING SHALL FOLLOW THE SAME GUIDELINES AS STUDENTS IN THE CLASSROOM.**
- ☺ Although approximate times have been given, these are guidelines for teachers. **Students should be given as much time as needed to complete the components of the assessment, within reason using teacher discretion.**
- ☺ Prior to the Provincial Assessment administration, you may wish to review with students "Tips for Answering Multiple Choice Questions".

# Teacher Administration Policy and Procedures

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## Assessment Security

The Department of Education assessment materials are considered secure documents.

Activities prohibited under the assessment security protocols include:

- Revealing the test items
- Copying the test items
- Interpreting or reading test items for students
- Changing or otherwise interfering with student responses or test items
- Causing achievement of schools to be inaccurately measured or reported
- Copying student responses

## Before the Assessment

- Prepare the room for testing. Arrange the room so that each student will have enough work space and so that there will be sufficient space between students to prevent copying.
- Assemble materials needed during and after the test, including HB pencils, rulers and calculators.
- Ensure students have a book, or reading material, **under their desk** to read when they have finished their assessment.

## During the Assessment

- Distribute materials as prescribed.
- Maintain assessment security.
- Supervise assessment administration. While students are working, the teacher should move about the room and ensure that:
  - Students have cleared their desks of all materials except the appropriate test resources.
  - Students are working independently.
- While it is appropriate to encourage students to continue working during the assessment administration, it is not appropriate to talk with them about any test item or help them answer any test question. For example, it would be appropriate to encourage and comfort a student who is upset or frustrated to try their best. However, it is **not acceptable** to provide students with any information that would allow them to infer the correct answer, such as suggesting that they might want to check their work. Do not talk to students about any specific test item or engage in any verbal or nonverbal communication that would allow students to conclude they have omitted or answered a question incorrectly.

## After the assessment

- Collect all assessment materials and return to principal.

# Intermediate Mathematics Assessment

## In this assessment, students will:

- ◆ Demonstrate number sense and apply number-theory concepts (General Outcome N)
- ◆ Use patterns to solve problems (General Outcome PR)
- ◆ Represent algebraic expressions in multiple ways (General Outcome PR)
- ◆ Use measurement to solve problems (General Outcome SS)
- ◆ Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them (General Outcome SS)
- ◆ Describe and analyze position and motion of objects and shapes (General Outcome SS)
- ◆ Collect and analyze data to solve problems (General Outcome SP)
- ◆ Use experimental or theoretical probabilities to represent and solve problems involving uncertainty (General Outcome SP)

## Required Materials

- ◆ Student Work Booklet (provided)
- ◆ Bubble Sheet (provided)
- ◆ 2 HB pencil / Eraser
- ◆ Ruler
- ◆ Manipulatives (as needed)

## Helpful Hints

- ◆ Read with students the chart entitled “Tips for Answering Multiple-Choice Questions” on page 22 in this guide.
- ◆ Have appropriate manipulatives available to students.
- ◆ Students should use the space in their work booklets for their workings.
- ◆ Students may use dictionaries, class charts, and word walls to help with spelling during the constructed-response questions. However, spelling or any other conventions of writing will not be considered in the marking.

## Procedure

- ◆ The time frame is approximately 120 minutes. Students should be given as much time as needed to complete the components of the assessment, using teacher discretion.
- ◆ Tell students they are going to be answering multiple-choice questions and constructed-response questions in Mathematics.
- ◆ They are to read the questions independently and silently.
- ◆ Distribute the student work booklets and bubble sheets. Explain that multiple-choice questions should be answered in the booklet first. The answers then have to be shaded on the bubble sheets, number 1-25. Students may use their booklets to do the necessary work to find the best answer to the multiple choice questions. Encourage students to ensure the question numbers match the numbers on the bubble sheet.
- ◆ Students have been provided with student work booklets. They should fill in the personal information on the cover of the student work booklets and on the bubble sheets.
- ◆ Explain that for the constructed-response items they are to write (or print) their answers on the lines or space provided in the booklet. Partial marks are awarded for these questions so it is important to show all workings for each question.
- ◆ The value of each constructed response item is indicated below each question in the student work booklet. Constructed response items require students to write, draw or graph their responses in the space provided in this booklet. It is important that they show their work.
- ◆ Use the remainder of the time to have students work independently. They may use manipulatives or spelling aids (as indicated in **Helpful Hints**) as they need them.

### **IMPORTANT:**

If students ask questions about the assessment, teachers shall respond **VERBATIM:**

**“This is an assessment and I can only answer questions about the instructions. I cannot answer any questions about the assessment or your answers.”**

While it is appropriate to encourage students to continue working during the assessment administration, it is not appropriate to talk with them about any test item or help them answer any test question. For example, it would be appropriate to encourage and comfort a student who is upset or frustrated to try their best. However, it is **not acceptable** to provide students with any information that would allow them to infer the correct answer, such as suggesting that they might want to check their work. Do not talk to students about any specific test item or engage in any verbal or nonverbal communication that would allow students to conclude they have omitted or answered a question incorrectly.

- ◆ As the session progresses, please take some time to examine each student's answer sheet and student booklet for complete and correct coding of their name, school, etc. This means both clear writing and correct shading beneath the writing. The name printed on the summary narrative a student will later receive is exactly the name coded on the student Bubble Sheet. Many complaints about an incorrect student name result from incorrect student coding of their name.
- ◆ Collect the booklets and bubble sheets at the end of the allotted time.
- ◆ Remember that accommodations may be used for individual students such as verbatim scribing of written responses. An approved scribe (with professional qualifications in teaching, testing, or other related fields) shall record only as the student dictates, without prompting. The constructed-response questions are assessing understanding, not writing skills; therefore the student does not have to supply spelling, capitalization, or punctuation. The student dictates and the scribe writes. Any answers completed on the computer should be stapled to the inside front cover of the booklet, indicating which section it is.
- ◆ Students who have difficulty manipulating a pencil may have a scribe for drawing. The student must be the one telling the scribe what to draw and where to draw it, in a soft voice so as not to distract others, or in a separate area of the classroom. **There is to be no prompting of what to draw.**
- ◆ Verbatim reading of questions is as follows:
  - ❖ Only words can be read by teachers.
  - ❖ **Students need to read:**
    - Numerals (e.g., 1 232 505),
    - equations (e.g.,  $750 \times 1.23 = \square$  ),
    - symbols (e.g.,  $\int$  ),
    - pictorial representations.

# Tips for Answering Multiple-Choice Questions

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- Always read each question carefully. Think about what the information is telling you.
- Re-read the question and any accompanying text or diagrams if necessary.
- For graphs, study the axes and determine the purpose of the information before attempting an answer.
- For diagrams, study the diagram paying particular to measures, markings and relationships before attempting an answer.
- Work out the solution. From the alternatives given, choose the one that best matches your answer.
- If your answer does not closely match the given answers, work out your solution again (you may have made a mistake). It can also help to look at each answer choice
- If you get stuck on a question, go on to the next question (you might remember how to do the other question later). Come back to any skipped questions at the end.
- Colour only one circle for each question on your ANSWER SHEET. If you colour two circles, the question is not scored.
- Answer every question, even if you are not sure. It will help if you can eliminate those responses you know are incorrect or not possible.

Use any extra time to check your answers.

## AFTER THE ASSESSMENT

### FOR THE TEACHER

When the assessment is completed, please follow these directions:

#### Packaging

- ☐ **ENSURE EACH STUDENT BUBBLE SHEET IS IN HIS/HER STUDENT WORK BOOKLET.**
- ☐ Ensure that student information on the outside cover of the student work booklets is complete.
- ☐ Schools with more than one class of should separate the booklets by class. Complete **ONE** (1) Class Header form *per class*, and one Building Header form *per school*. ONE Class Header will be required for Mathematics for each teacher.
- ☐ Class Header:
  - teacher name where it says class name
  - total number of students in the class who participated in the Provincial Assessment, where it says *Sheet Count*
- ☐ Building Header:
  - school name where it says building name
  - total number of Grade 9 students in the school who participated in the Provincial Assessment, where it says *Sheet Count*
- ☐ Put the Student Tracking form(s), Class Header form(s), and Building Header form(s) in the envelope provided. Please put school name and district on the outside of the envelope.
- ☐ Send the completed materials to your District Office as soon as possible after the completion of the Provincial Assessment.
- ☐ **Send assessment materials to the Program Specialist or designate on, or as soon as possible, after the assessment is completed by students.**
- ☐ Do not put elastic bands around any sheets.
- ☐ Do not staple bubble sheets to the student work booklets.

## Scoring

- ☐ All activities that were completed using the bubble sheets will be scored electronically.
- ☐ The other activities will be scored by a panel of educators.
- ☐ The provincial marking will occur following school closure in June, 2012.
- ☐ Applications for the marking panel will be made available in the spring of 2012.

## Reporting Results

*Results are reported at the student, school, district and provincial level.*

At the Student Level, results will be reported by a personal student narrative in terms of:

- ✓ individual student results overall and by sub-test (content strand/unit)
- ✓ individual student achievement in relation to school, district, and province

At the School Level, results will be reported in terms of:

- ✓ student performance overall and by sub-test (content strand/unit)
- ✓ summary results overall and by sub-test (content strand/unit) by class, school, district, and province
- ✓ Item Analysis indicating the percentage of students who selected each of choice A, B, C, or D for each question on the test in the school, district and province

At the District Level, results will be reported in terms of:

- ✓ all school results overall and by sub-test (content strand/unit)
- ✓ summary results overall and by sub-test (content strand/unit) by school/class for each school in the district
- ✓ summary results overall and by sub-test (content strand/unit) by district and province
- ✓ Item Analysis indicating the percentage of students who selected each of choice A, B, C or D for each question on the test in the district and province

ENTER TEACHER NAME WITH GRAPHITE PENCIL.

EXAMPLE GRADE/CLASS NAME

JANE SMITH

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

PLEASE USE GRAPHITE PENCIL ON ALL SCORE SHEETS

GRADE/CLASS HEADER  
Form No. 16131

EXAMPLE

GRADE			LEVEL		
K	<input type="radio"/>	A/1	J/10	<input type="radio"/>	S/19
1	<input type="radio"/>	B/2	K/11	<input type="radio"/>	T/20
2	<input type="radio"/>	C/3	L/12	<input type="radio"/>	U
3	<input type="radio"/>	D/4	M/13	<input type="radio"/>	V
4	<input type="radio"/>	E/5	N/14	<input type="radio"/>	W
5	<input type="radio"/>	F/6	O/15	<input type="radio"/>	X
6	<input checked="" type="radio"/>	G/7	P/16	<input type="radio"/>	Y
7	<input type="radio"/>	H/8	Q/17	<input type="radio"/>	
8	<input type="radio"/>	I/9		<input type="radio"/>	
9	<input type="radio"/>			<input type="radio"/>	
10	<input type="radio"/>			<input type="radio"/>	
11	<input type="radio"/>			<input type="radio"/>	
12	<input type="radio"/>			<input type="radio"/>	
13	<input type="radio"/>			<input type="radio"/>	
14	<input type="radio"/>			<input type="radio"/>	
15	<input type="radio"/>			<input type="radio"/>	
16	<input type="radio"/>			<input type="radio"/>	
OTHER	<input type="radio"/>			<input type="radio"/>	

ENTER GRADE WITH GRAPHITE PENCIL.

DO NOT USE STAPLES, RUBBER BANDS, PAPER CLIPS, OR ANYTHING ELSE THAT WILL RESULT IN DAMAGE TO SCORE SHEETS AND PREVENT THEM FROM BEING PROCESSED BY THE SCANNER

EXAMPLE EXAMPLE

SHEET COUNT	CODES														
0007	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
●●●●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91
77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97
83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98
84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

SHEET COUNT FOR STUDENT SCORE SHEETS ONLY. DO NOT INCLUDE BUILDING OR CLASS HEADERS IN THE COUNT. THE TOTAL NUMBER OF STUDENTS ASSESSED FOR THE CLASS SHOULD BE INSERTED FLUSH RIGHT WITH ZEROS ADDED TO THE LEFT AS INDICATED HERE.

ENTER CLASS NUMBER (eg. 001, 002, 003, AND SO FORTH) IN THE COLUMN INDICATED HERE. ADD ZEROS TO THE LEFT.

LEVEL			
PRIMARY I	<input type="radio"/>	INTERMEDIATE I	<input type="radio"/>
PRIMARY II	<input type="radio"/>	INTERMEDIATE II	<input type="radio"/>
PRIMARY III	<input type="radio"/>	ADVANCED	<input type="radio"/>
ELEMENTARY	<input type="radio"/>	ADVANCED I	<input type="radio"/>
ELEMENTARY I	<input type="radio"/>	ADVANCED II	<input type="radio"/>
ELEMENTARY II	<input type="radio"/>	JUNIOR HIGH	<input type="radio"/>
INTERMEDIATE	<input type="radio"/>	SENIOR HIGH	<input type="radio"/>
OTHER	<input type="radio"/>	BLUE	<input type="radio"/>
		BROWN	<input type="radio"/>



