



Administration Guide

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Introduction

These administrative guidelines should be read carefully prior to the administration of the Intermediate Mathematics Assessment.

Consistency across the province is very important to the administration of this assessment. To ensure consistency, these guidelines have been prepared to clarify how the assessment is to be administered.

All materials must be kept in a secure area prior to the assessment. Assessment materials are confidential. Photocopying of assessment materials is not permitted.

Contact Elizabeth Costa (368-6124) or Zain Esseghaier (368-4283) at the Department of Education concerning any questions.

Administrative Date

June 17, 2010, in the morning.

Excluded, Adapted or Modified Students

Following the guidelines (see page 22), please ensure that requested documentation (Individualized Education Plan [IEP], Modifications, Adaptations) are attached to the Student Answer Sheets for students with special needs. A photocopy of the first page of the document is required. Please list individualized adaptations on the Student Answer Sheet.

Information for School Contacts

Prior to the Assessment Date

The box of materials for your school should include:

- Question Booklets
- Student Answer Sheets
- Bubble Sheets
- Student List
- Scoring Keys
- School Contact Report
- Classroom Marking Sheets

Upon receipt of the shipment containing assessment materials:

- Verify the contents.
- Fill out the **Prior to the Assessment** section of the School Contact Report.
- Contact the Department of Education and Early Childhood Development at (902) 368-0281, if:
 - you are missing a Question Booklet, Student Answer Sheet, or Bubble Sheet for any student;
 - if a student is missing from the list; or
 - if a student is on the list but no longer attends your school.

Prior to the Assessment

- Acquaint yourself with all assessment materials.
- Locate a safe and secure storage space for the assessments until the administration day.
- Organize the assessments by class. The Question Booklet and Student Answer Sheet are specifically assigned to each student.
- Question Booklets should not be viewed by anyone prior to the day of the assessment. This helps with fairness and consistency across the province.
- Classroom Marking Sheets are provided to assist in the marking of assessments. Do not return these to the Department.
- Pass out the Bubble Sheets to classroom teachers. Most school information can be filled in on the Bubble Sheets prior to the assessment date. However, Student Number and School Number will be filled in on the day of the assessment as the students will need to copy these numbers from the cover of the Question Booklets (see page 5 for directions).

On the Day of the Assessment

- Deliver assessment materials to each Grade 9 math teacher 45 minutes to one hour prior to the administration of the assessment.
- Remind teachers to complete the Exemptions/Adaptations Section on the Student Answer Sheet for identified students.
- Remind teachers to attach a photocopy of the first page of the IEP, Adapted or Modified Program document.
- Ensure that teachers are aware that each student has an assigned Question Booklet and Student Answer Sheet.

After the Assessment – Checklist

- ☐ Pass out the Scoring Keys to each teacher so teachers can mark assessments to determine the students' score and the 10% value.
- ☐ Once teachers finish marking the assessments, collect all the assessment materials including the Scoring Key.
- ☐ Verify that all Exemptions/Adaptations documentation have been attached to the Student Answer Sheets.
- ☐ Ensure that the Exemptions/Adaptations section of the Student Answer Sheets have been filled out for identified students.
- ☐ Complete the **After Administration** section of the School Contact Report.
- ☐ Once the information on the School Contact Report has been verified, both you and your principal should sign off in the designated space on the form.
- ☐ Place Question Booklets in the bottom of the box in numerical order.
- ☐ Place the Student Answer Sheets (with the Bubble Sheet inside) next in the box in numerical order.
- ☐ Place the completed School Contact Report on top of the Student Answer Sheets.
- ☐ Place student list on top of the School Contact Report.
- ☐ Once materials are boxed, take them to the school office. Make sure they are kept in a secure place (i.e., the principal's office until pickup).
- ☐ Contact PLMDC at 368-4646. They will arrange to pick up the assessments.
- ☐ Let the school secretary know about the location of the boxes and the pickup arrangements.

Students who are absent may write the assessment on Friday, June 18 or Monday, June 21.

Information for Teachers

- ☐ Acquaint yourself with all materials.
- ☐ Identify those students in the class who should be exempted from the assessment.
- ☐ Fill out the Exemptions / Adaptations section of the Student Answer Sheets for identified students.
- ☐ Attach required documentation (photocopy of the first page of the IEP, Adapted or Modified Program) to the Student Answer Sheet.
- ☐ Note which students will be using an adaptation to write the assessment, as per the adaptations listed on the Student Answer Sheet. (Place a check mark in the appropriate box or boxes.)
- ☐ Each student has an assigned Question Booklet and Student Answer Sheet.
- ☐ Have students fill in the Bubble Sheets prior to the assessment date (see page 5 for directions). **Please note** that the Student Number and School Number will be filled in on the day of the assessment as the students will need to copy these numbers from the cover of the Question Booklets.
- ☐ Classroom Marking Sheets are **not** to be returned. Students do not fill in the Classroom Marking Sheets.

Directions for Filling in the Information on the Bubble Sheets Prior to the Assessment Date

Pass out a bubble sheet to each student.

Say,

Everyone should have a sharpened pencil and an eraser.

You must be careful of the way you handle the Bubble Sheet. The Bubble Sheets will be scored by a computer, and they must not be bent, torn or have any stray marks on them anywhere. You must use a pencil to fill out the Bubble Sheet as the scanner cannot read pen.

1. Print the name of your school at the top of the Bubble Sheet.
2. Put your name in the blocks, letter by letter, at the top left of the Bubble Sheet, printing your last name first. The letters should be printed in the blocks, and the correct corresponding circle should be shaded below each letter. This is very important. If the first letter of your name is "A", print an "A" in the first block and shade the "A" under it. If the second letter is "D", write a "D" in the second block, and shade a "D" under it. And so on. If there is not enough room for your last name, put in as many letters as you can. Do the same thing with your first name.

[Pause and check.]

3. In the Birthdate box, put your birthdate in the blocks beginning with the month, then the year. Shade in the corresponding circle. If you were born in December write 1 in the first block, and then 2 in the second, because December is the 12th month of the year. Then shade in circle 1 and circle 2.

[Pause and check.]

4. In the Gender box:
 - if you are a female, shade in circle F.
 - if you are a male, shade in circle M.

[Pause and check]

5. In the Program box:
 - If you are in the regular English program, shade in circle 1 beside the letters ENG.
 - If you are in the French Immersion program shade in circle 2 beside the letters FI.
 - If you are in the regular French First Language program, shade in circle 3 beside the word FRENCH.

[Pause and check]

continued

6. In the Subject box shade in the circle beside the word MATH.

7. In the Grade box shade in the circle 9.

Please note:

The Student Number and the School Number will be filled in on the day of the assessment.

Script to Be Read for the Administration Of the Assessment (For All Teachers)

The only text to be read to the students is inside the shaded boxes. It must be read word for word.

The unshaded text is background information and instructions for the test administrator.

Please arrange to have some books or magazines or other reading materials available for students who finish the assessment before the full time has passed.

1. Introducing the test

Introduce yourself if the students do not know you. Then say:

Good morning. The test that you are about to write is a common assessment for all Grade 9 math students on Prince Edward Island. The results of this assessment will help us find out what students in Grade 9 know about math. It is important that you give your best effort, so that the best possible information is gathered from this assessment. The results of this assessment will count 10% towards your final grade. They will also give a picture of all Grade 9 students in math. This is very helpful for teachers and for the Department of Education and Early Childhood Development. As the assessment materials are being distributed, please keep the documents face down on your desks, until I tell you to begin the assessment.

2. Distribute the materials to students. Students each receive their copy of the following documents:

- Question Booklet
- Student Answer Sheet
- Bubble Sheet

Ensure that students have the necessary supplies: two sharpened HB pencils, a quality eraser, a ruler, and a calculator prior to beginning the assessment. Pencil must be used as the scanner will not read pen.

3. Beginning the test session

Students may now turn over the Question Booklet, the Student Answer Sheet, and the Bubble Sheet.

A. *Say,*

Everyone should have a sharpened pencil and a spare, an eraser, a ruler, and a calculator. Please check that your name is on the Question Booklet, the Student Answer Sheet, and the Bubble Sheet.

You must be careful of the way you handle the Bubble Sheet. The Bubble Sheets will be scored by a computer, and they must not be bent, torn or have any stray marks on them anywhere.

You will now finish filling in the Student Number and the School Number on your Bubble Sheets. Both these numbers are located on the cover of the Question Booklet.

1. Copy your Student Number into the blocks in the STUDENT NUMBER box. The correct corresponding circle should be shaded below each number.
2. Copy the School Number into the blocks in the SCHOOL NUMBER box. The correct corresponding circle should be shaded below each number.

Then say,

Open your Question Booklet and listen while I read aloud the contents of the following sections:

- Instructions
- Test-taking Strategies

I can only answer questions about the instructions, or the test-taking strategies, not about the specific items on the test. Are there any questions?

Now turn to page 1 and begin the assessment. You have two hours to complete the assessment. Use your time carefully. Please begin.

Use your watch or clock to time the session.

Monitor the students.

As the session progresses, please take some time to examine each student's Bubble Sheet for complete and correct coding of their name and other information required.

B. *After 90 minutes say,*

You have about 30 minutes left to finish the test. Use your time carefully.

As the end time approaches, watch for students who appear to have finished and remind them to check their work. Once you are satisfied that a student has finished all that he or she can do, you may give him or her a book, magazine, or other reading materials to read.

C. *After 30 more minutes, for a total of 120 minutes, say:*

How many people would like some more time? Please raise your hand.

If students need more time, give them up to 10 additional minutes. Please note this information and pass it on to your School Contact person. Do not include students for whom “additional time” is a documented adaptation as this information should be reported on the Student Answer Sheet.

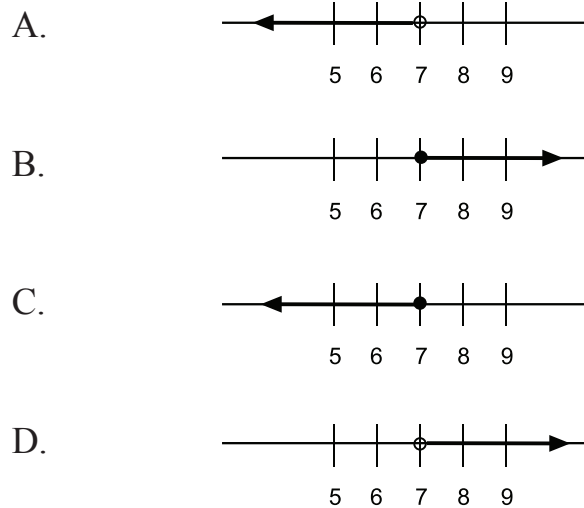
4. After the Assessment (For all teachers)

- Thank the students.
- Ask students to insert the Bubble Sheet inside his/her Student Answer Sheet.
- After you have accounted for all assessment materials for every student, dismiss the students according to the policy of the school.
- Obtain the Scoring Key from the School Contact Person.
- Correct the assessments and fill in the student's mark out of 10 at the bottom of the Student Answer Sheet. Retain this mark for report card purposes.
- Insert each student's Bubble Sheet inside his/her Student Answer Sheet.
- Place Student Answer Sheets in numerical order.
- Place Question Booklets in numerical order.
- Return all assessment materials including the Scoring Key to the School Contact Person. Classroom Marking Sheets are not to be returned.

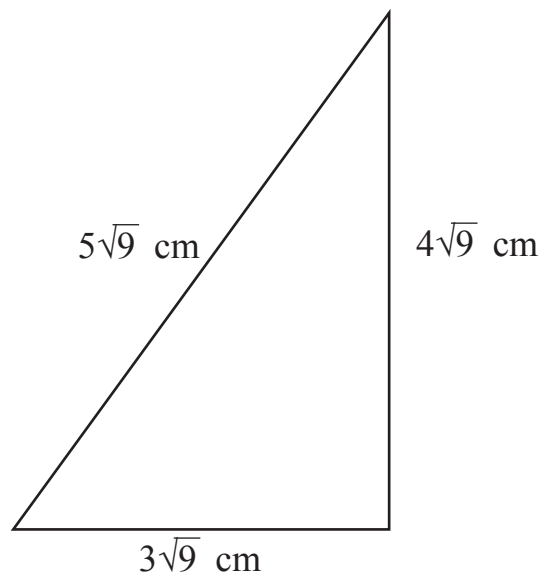
Sample Questions

1. Which graph shows the solution, if x is a real number?

$$7x \geq 49$$



2. Simplify and calculate the perimeter of the following:



_____ cm

3. Calculate:

$$\frac{25}{8} \div \frac{5}{4}$$

A. $3\frac{29}{32}$

B. $\frac{12}{5}$

C. $\frac{40}{100}$

D. $2\frac{1}{2}$

4. Calculate:

$$3\frac{2}{5} \times 1\frac{1}{8}$$

A. $4\frac{27}{40}$

B. $3\frac{2}{40}$

C. $3\frac{33}{40}$

D. $4\frac{21}{40}$

5. Simplify:

$$\frac{4^6 \times 4^2}{4^3}$$

A. 4^{-4}

B. 4^{11}

C. 4^5

D. 4^{-5}

6. A rectangular deck is 11 m by 5 m. Calculate the length of the deck's diagonal.

A. 27.5 m

B. 16 m

C. 12.1 m

D. 55 m

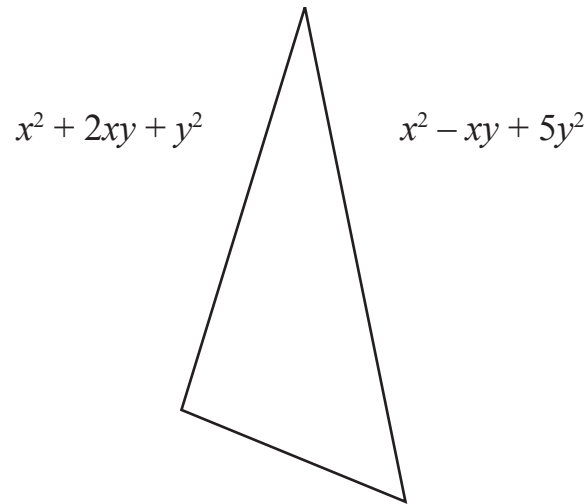
7. Lauren owns two electronics companies. The data below shows the number of units of each product that can be produced by each company for one week.

	Company 1	Company 2
Stereos	34	25
Cameras	16	28
MP3 Players	32	29

Lauren wants to increase productivity of entry 2,1 by 50%. What is the new total number of units in entry 2,1?

- A. 24
- B. 8
- C. 32
- D. 42

8. Consider the following triangle:



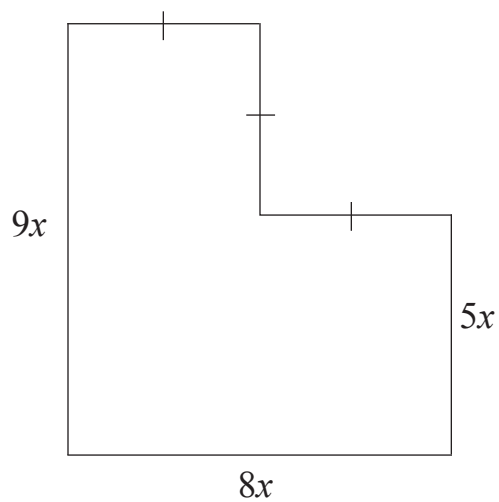
If the perimeter of the triangle is $5x^2 + xy + 5y^2$, find the missing side.

- A. $3x^2 - y^2$
- B. $2x^2 + xy + 6y^2$
- C. $7x^2 + 2xy + 11y^2$
- D. $-3x^2 + y^2$

9. Simplify. Express with positive exponent.

$$(x^9)^{-2} = \underline{\hspace{2cm}}.$$

10. Calculate the perimeter, when $x = 5\text{cm}$.



Answer: _____ cm.

11. Which equation represents a line with a y -intercept = 2, and a slope = $-\frac{3}{2}$?

A. $y = -\frac{3}{2}x - 2$

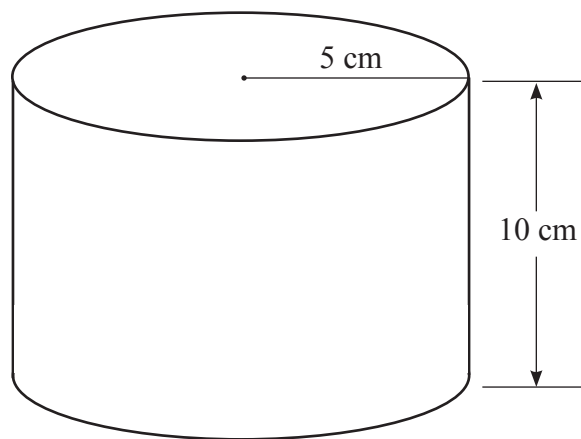
B. $y = -\frac{3}{2}x + 2$

C. $y = \frac{3}{2}x + 2$

D. $y = \frac{3}{2}x - 2$

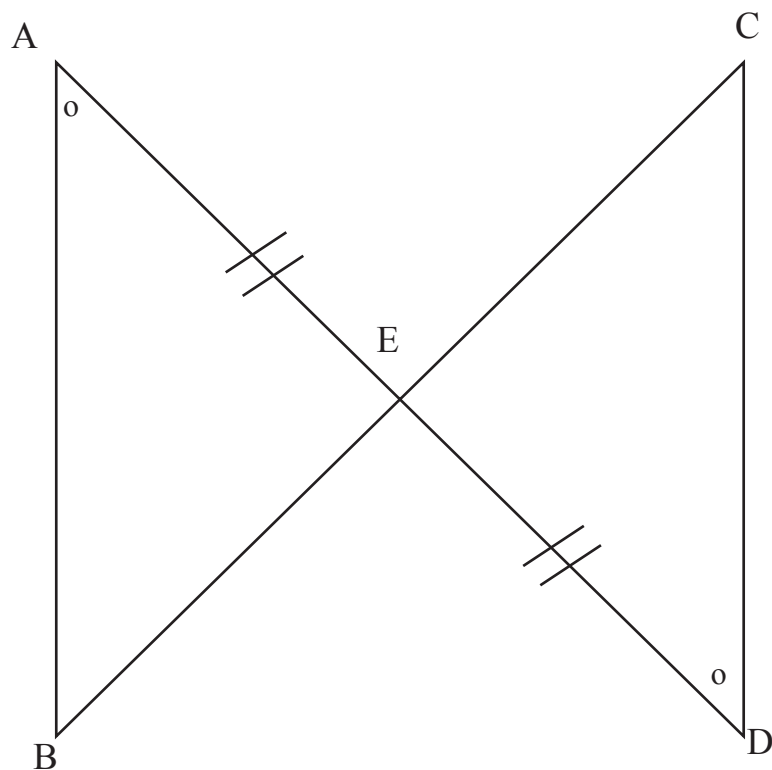
12. If together a pair of jeans and a sweater cost \$85, and if the pair of jeans costs \$25 more than the sweater, then the pair of jeans costs \$ _____.

13. What is the volume of the following cylinder?
The volume of a cylinder: $V = \pi r^2 h$ where $\pi = 3.14$



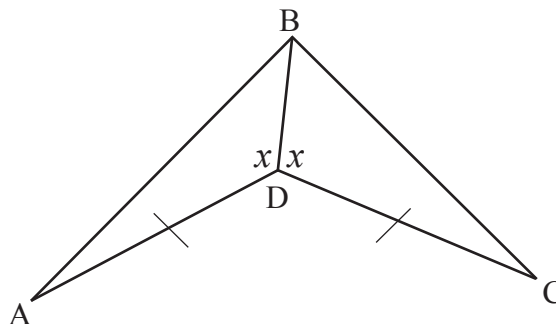
- A. 785 cm³
- B. 314 cm³
- C. 157 cm³
- D. 1570 cm³

14. What case makes triangle AEB congruent to triangle DEC?



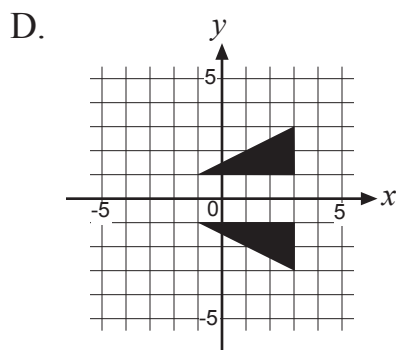
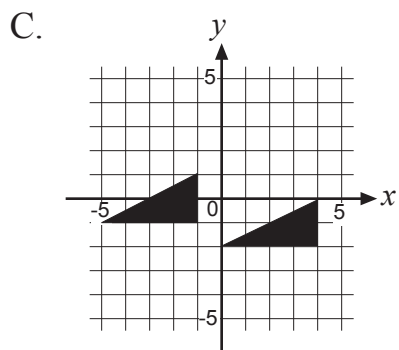
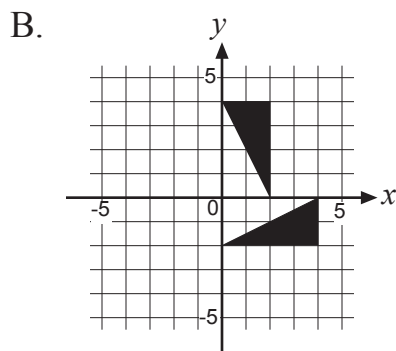
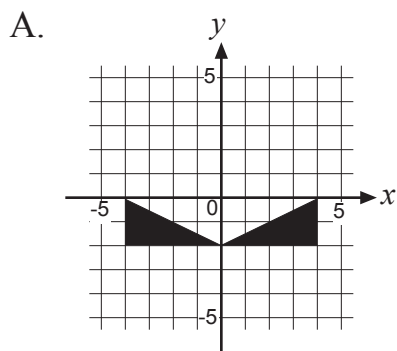
- A. ASA
- B. SSS
- C. SAS
- D. AAS

15. If the triangle ADB is congruent to triangle CDB, which corresponding sides are equal?

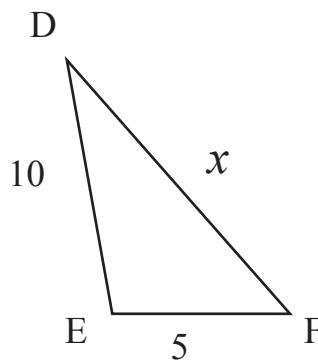
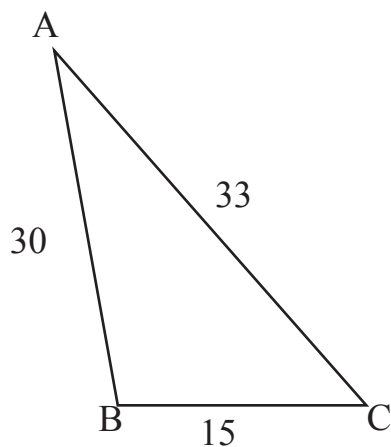


- A. $\overline{AB} = \overline{CD}$
- B. $\overline{AD} = \overline{BC}$
- C. $\overline{BD} = \overline{BC}$
- D. $\overline{AB} = \overline{CB}$

16. Which graph represents a reflection in the x axis?

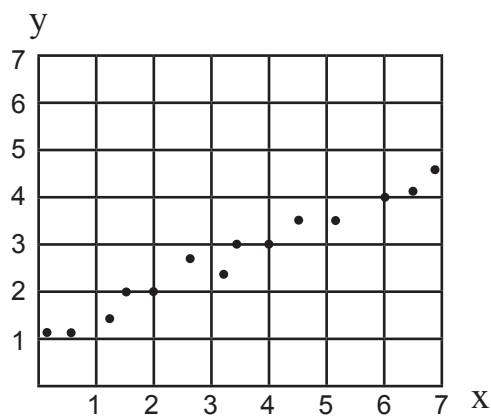


17. Consider the following two triangles:



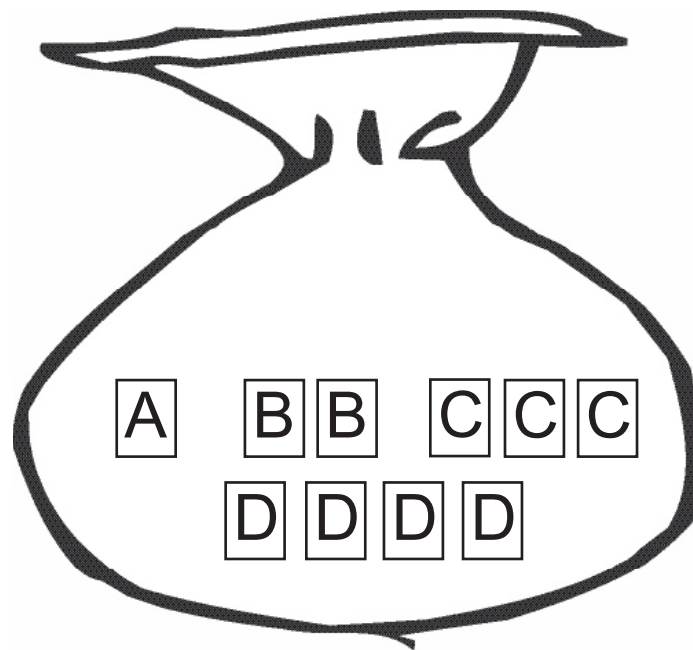
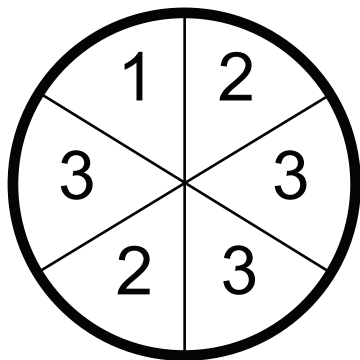
If triangle ABC is similar (\sim) to triangle DEF, then x is equal to _____.

18. Which equation best represents the line of best fit that would apply to this scatterplot?



- A. $y = \frac{1}{4}x + 1$
- B. $y = \frac{1}{2}x + 1$
- C. $y = x + 1$
- D. $y = 2x + 1$

19. When tossing a coin, which of the following number of coin tosses would best allow experimental probability to approach theoretical probability?
- A. 10
 - B. 100
 - C. 1 000
 - D. 10 000
20. Each student is asked to pick a card from a bag, spin a spinner, and toss a coin.



The probability of D and 2 and a head is _____.

**These questions were released from the
Intermediate Mathematics Assessment 2007.**

Answers to Sample Questions

1. B

2. 36

3. D

4. C

5. B

6. C

7. A

8. A

9. $\frac{1}{x^{18}}$ or $\left(\frac{1}{x}\right)^{18}$

10. 170

11. B

12. 55

13. A

14. A

15. D

16. D

17. 11

18. B

19. D

20. $\frac{1}{15}$ or 1:15 or 1 to 15
(or any equivalent)

Exemption and Adaptation Policy

Definitions:

- *Individualized Education Plan (IEP)*

A written record that documents the collaborative process for the development of an individualized plan for a student with special educational needs. This planning is a continuous and integrated process of instruction, assessment, evaluation, decision-making and reporting. The IEP outlines support services and educational program adaptations and/or modifications (Department of Education, 2005, p. 75).

- *Modified*

A process which changes the prescribed curriculum to meet a student's special needs. Modified courses do not provide the same credit as a prescribed course. Details of the modified course must be documented and included in the student's file and the student's record or transcript should indicate that the course has been modified (Department of Education, 2005, p. 75).

- *Adapted*

A documented process that allows a student with special needs to participate in a prescribed curriculum (course) with changes in format, instruction strategies and/or assessment procedures that retain the learning outcomes of the curriculum. This adaptation may include alternate formats, instructional strategies and/or assessment procedures. Full credit will be granted for such courses but adaptations used will be documented and kept on the student's file and/or transcript (Department of Education, 2005, p. 73).

Guidelines for Identifying Students Eligible for Total Exemptions, Adaptations/Accommodations and English as Additional Language (EAL)

- ***Total Exemptions***

Total exemptions from the assessment should be considered for those students who have a cognitive deficit, multiple handicapping conditions, or a learning disability to such a degree as would render the assessment inappropriate and/or emotionally harmful. Exemptions will be allowed for students who have been identified with exceptionalities and have an Individual Education Plan (IEP) and/or Modified Program in place as of December 31, 2009. The Question Booklet, Bubble Sheet, and Student Answer Sheet for those students must be returned to the Department of Education and Early Childhood Development with documentation attached, i.e., a photocopy of the front page of the IEP/Modified Program.

- ***Exemptions (Other)***

Specific circumstances may prevent a student from participating in the assessment. Such circumstances may include:

- Long-term illness: Student was unable to write the assessment during the designated time frame.
- Bereavement: Student was not able to participate during the designated time frame, due to a significant loss.
- Other: Student was unable to participate due to some other circumstance not listed above. The nature of the circumstance must be specified in written format and attached to the Student Answer Sheet before returning it to the Department of Education and Early Childhood Development.

- ***Adaptations***

Adaptations used to support the student during instruction should be provided during the assessment, if such adaptations do not compromise or alter the validity of the assessment, as it is important that the results of the assessment accurately reflect the independent abilities of the student. Photocopies of that documentation must be attached to the Student Answer Sheet before returning it to the Department of Education and Early Childhood Development. Students currently working with adaptations are not eligible for exemption.

- ***English as an Additional Language (EAL)***

EAL students are expected to participate in the assessment. Appropriate adaptations/ accommodations, if required, should be provided and documentation of adaptations/ accommodations must be attached to the Student Answer Sheet before returning it to the Department of Education and Early Childhood Development.

Note: if an EAL student's English language skills are not sufficiently developed, then the student may be exempted provided the decision is made at the school level by, at minimum, the student, the student's parent or guardian, the student's teacher, and the school principal.

- ***Acceptable Adaptations/Accommodations:***

Additional Time:

Students for whom "additional time" is a documented adaptation may require more than the additional time given to the entire class during the assessment.

Verbatim Scribing:

Students with a visual or physical impairment, injury, or learning disability, and for whom "verbatim scribing" is a documented adaptation may participate. If a scribe is required, the scribe writes exactly what the student dictates. Scribes do not edit or proofread student responses, nor do they advise, suggest, or imply that changes are required.

Verbatim Reading:

Students who need instructions or prompts read to them by the teacher or communicated through sign language may participate. Only verbatim reading of directions or prompts should be used.

Alternate Setting:

Students for whom "alternate setting" is a documented adaptation must complete the assessment independently. Ideally, the assessment should be supervised by the student's teacher, even in the alternate setting. However, if this is not possible, and someone other than the student's teacher is supervising the assessment, this supervisor must know the parameters of the assessment, and the integrity of the assessment must be maintained. The name and the role of the supervisor must be noted on the photocopy of the documented adaptation that is attached to the Student Answer Sheet when it is returned to the Department of Education and Early Childhood Development.

Assistive Technology:

Students with a visual or physical impairment, injury, or learning disability, for whom "assistive technology" is a documented adaptation may participate. The type of assistive technology (and software) used must be specified on the documented adaptation that is attached to the Student Answer Sheet when it is returned to the Department of Education and Early Childhood Development.

Personal FM System:

Students who require a personal FM system during a regular school day should be able to use this system during the assessment.

English Foreign Language Dictionary:

EAL students are permitted to use an English foreign language dictionary (paper or electronic).

* Please contact the Assessment Unit at the Department of Education and Early Childhood Development at 368-0281 if you have scenarios which do not fall into the categories outlined in these guidelines.



Education and Early
Childhood Development

School Contact Report

Please provide the following information **after** the administration of the Intermediate Mathematics Assessment in your school and return this report with your school materials.

School Name: _____

School Contact Person: _____

		Fill Out Prior to Administration	Fill Out After Administration	Department of Education Use Only	
	Sent	Received	Returned	Chief Marker	Checker
Number of Question Booklets					
Number of Answer Sheets					
Number of Bubble Sheets					
Number of Scoring Keys					

Please complete the following section once materials are boxed and ready for pick-up by PLMDC.

	School Use		Department of Education Use Only	
	School Contact	Principal	Chief Marker	Checker
Sign Off				
Date				
Time				

Continued...

1. Describe any problems that were encountered in the administration of the assessment.
Use additional space if needed.

2. Do you have specific suggestions or comments regarding the administration process?

Please place this completed sheet at the top of the packaged box of assessment materials.



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