Intermediate Mathematics
Provincial Assessment 2007

Last Name: _____ First Name: _____ MI: ____

Teacher: _____

School Name: _____ School District: _____

IMPORTANT

You will have to complete your name and school information in four places:

(1) On Section 1 and 2
(2) On the bubble sheet
(3) On the cover of your Student Booklet

Please ensure the information in each of these places is completed correctly and clearly. Your bubble sheet will be placed inside the Section 1 Insert for mailing so pay particular attention that the bubble sheet and Insert information are correct.

Section 2: Written Response Questions

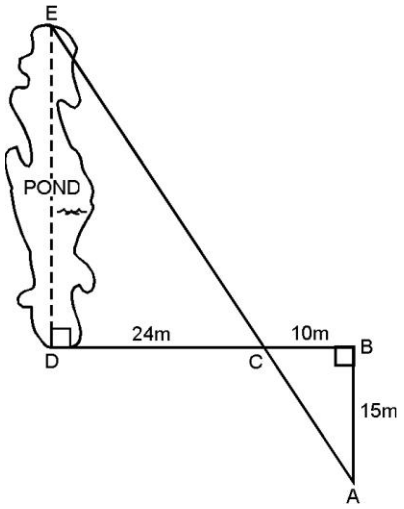
You will need a pencil, paper, and ruler for this section. You are permitted the use of a calculator.

Questions, 8-11 require you to write, draw, or graph your responses in the space provided in this booklet. Do not use your bubble sheet for these questions. Section 2 should take about 20 minutes.

Your teacher will collect Section 2 when everyone is finished and will then give you Section 3 (a larger work booklet containing the rest of the questions). You will need your bubble sheet for Section 3.

Section 2 Insert

8. Look at the diagram below.



a) Which triangles are similar?

b) Explain why the triangles are similar.

c) Use your knowledge of similar triangles to create and solve an equation to determine the distance across the pond from D to E.

9. Your school is planning a field trip to Gros Morne National Park. The cost of the trip is a flat fee of $500 plus $50 per student.

a) Complete the table below.

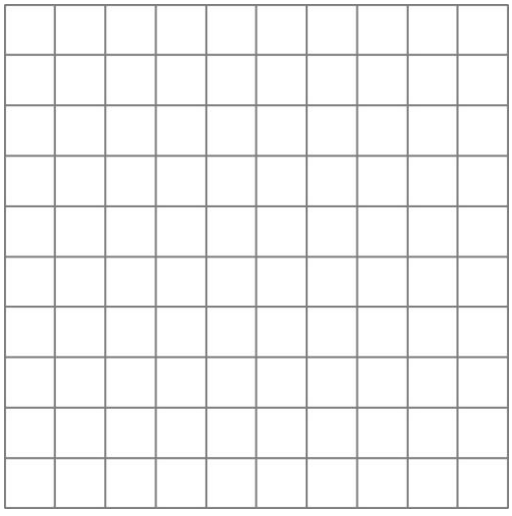
Table A:

Number of Students	0	2	4	6	8
Cost of Trip					

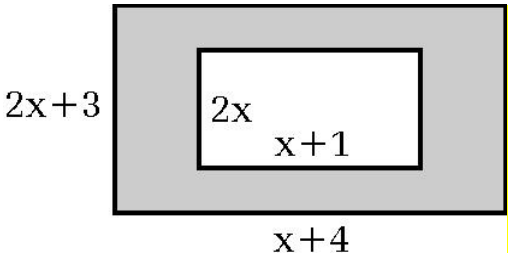
b) If the total cost of the trip was $1250, write and solve an equation to determine the number of students who went on the trip.

c = cost of the trip
n = number of students

c) Graph the information from Table A and extend the graph to confirm your answer in (b). Label your graph.



10. The shaded region represents a picture frame. Find an expression for the area of the shaded region in simplest form.



11. A spherical scoop of ice cream, as shown  , melts into a cone. The sphere had a radius of 3 cm. The cone has a radius of 3 cm and a height of 10 cm.

Will the melted ice cream fit into the cone or will it overflow the cone?

Explain your answer using numbers and words.