Skolverket/
Lärarhögskolan i Stockholm
PRIM-gruppen

2002

MATHEMATICS TEST
Year 9 – Part B2

For this material *the secrecy* is valid until the end of June 2012.

This part of the test contains one major problem, which you have 50 minutes to solve.

It is very important that you clearly show how you have solved the problem.

Above the problem you will find a square with a description regarding what your teacher will take into account when assessing your work. The maximum mark your solution can receive are 5 g-points and 7 vg-points. The item marked with ¤ give you a possibility to show MVG-quality.

Tools: Calculator, ruler.

Name: _____

School: _____ Class: _____

Date of birth: Year _____ Month _____

Day _____

Girl ☐ Boy ☐

All calculations and answers should be written on paper that is handed in at the end of the test. The test packet must be handed in with your solutions.

Part B2 – Rectangles

At the assessment of your work the teacher will consider
- what mathematical knowledge you have shown
- how well you have drawn your figures and accounted for your work
- how well you have motivated your conclusions.

I a) Draw a rectangle. You may by yourself decide the base (length) and height (width).

b) Draw a new rectangle, which has a base that is 2 cm longer and a height that is 1 cm shorter than in the first rectangle. Find and compare the areas of the two rectangles.

II Two rectangles A and B have *equally large areas*. The rectangle B has 2 cm longer base and 1 cm shorter height than the rectangle A.

a) Draw two rectangles, which fit the description and put in their measures.

b) Continue to draw or state in an alternative way more *pairs of rectangles*. Investigate what relations that are valid for such *pairs of rectangles*. Describe your conclusions and relations in words or formulas.

(5/7) ¤