

# Mathematics

Part C

Årskurs

9

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Elevens namn och klass/grupp

## Instructions

The box below the task contains a description of what your teacher will take into account in assessing your work. This task can give a maximum of 4 E-points, 4 C-points and 4 A-points.

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

Aids: calculator and formula sheet.

Name: \_\_\_\_\_

School: \_\_\_\_\_ Class: \_\_\_\_\_

Date of birth (year/month/day): \_\_\_\_\_

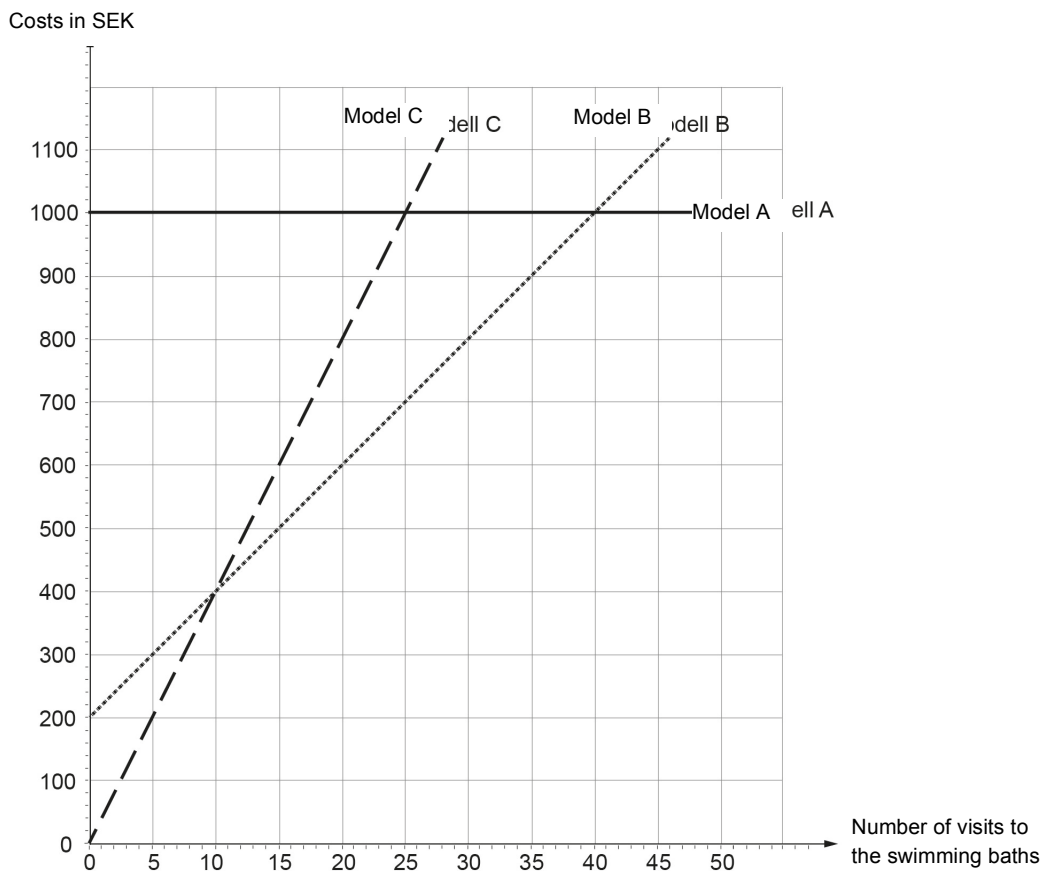
Girl       Boy

*The solutions and answers must not be written in the student booklet but must be written on a separate sheet of paper instead. The student booklet has to be handed in along with the solutions.*

Good luck!

## 18. The swimming baths

You can choose between three different payment methods A, B and C when you visit the swimming baths during a year. The diagram shows the three payment models.



- Axel has chosen to pay according to model A, Beatrice according to model B and Charlie according to model C. In 2012 they all visited the swimming baths 20 times each. How much did each of them have to pay?
- Imagine that you are going to start swimming in the swimming baths and have to choose a payment model. Describe the advantages and disadvantages that the three different models have.
- Does any model or models show a cost that is proportional to the number of visits to the swimming baths? Explain for each of the models why they are proportional or not.
- For each payment model give a formula that you can use to calculate what it would cost irrespective of how many times you intend to visit the swimming baths during a year.

(4/4/4)

### In assessing your work the teacher will take account of

- what mathematical knowledge you have shown and how well you have done the task
- how well you have presented your work
- how well you have motivated your answers.

