Mathematics

Delprov C

Årskurs

9

Elevens namn och klass/grupp

Skolverket

Instructions

The box below the task contains a description of what your teacher will take into account in assessing your work.

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!

Illustrations: Jens Ahlbom

The wedding cake

16. Peter and Jasmine are going to bake a wedding cake for their cousin who is getting married. They want to find out how big a piece of cake equals one portion. To do this, they buy a piece of cake of the same type (and same height) as the one they are going to bake.

a) The piece of cake has the form of a cuboid of length 10 cm and width 5 cm. How large is the base area of the piece of cake?

b) Including the bride and groom, there are 60 people at the wedding reception, and every person is to get one piece of cake each. "Oh no!" Peter exclaims, "then our cake is going to have a base area of 30 dm²." Is this true? Explain your answer by means of calculations.

c) Jasmine thinks they should bake a round cake with three tiers.

The cake on the bottom tier will have twice the base area of the cake on the middle tier. The cake on the middle tier will in turn have twice the base area of the cake on the top tier. The three-tier cake is to be enough for all 60 people to get one piece of cake each. How great will the diameter of each of the three round cakes be?

(4/4/4)

> **In assessing your work, the teacher will take into account**
> - 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.

PRIM
gruppen