

Mathematics

Delprov C

ÅRSKURS

9

Elevens namn och klass/grupp

Instructions – Part C

This part consists of a question where digital devices and formula sheet are allowed.

It is important that you show all your working out because you can be given points for partially answered questions.

Aids: Digital devices, formula sheet and ruler.

*Solutions and answers must be written on a separate sheet of paper.
This booklet must be handed in together with the solutions.*

Name: _____

School: _____ Class: _____

Date of birth (year/month/day): _____

Good luck!

Illustration: Jens Ahlbom



When assessing your work the teacher will take the following into account

- what mathematical knowledge you have demonstrated and how well you have answered the questions
- how well you have shown your line of thought and your calculations
- how well you have drawn figures and drawings.

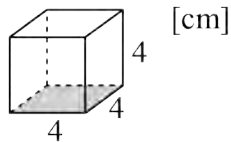
21. Packages

(5/5/4)

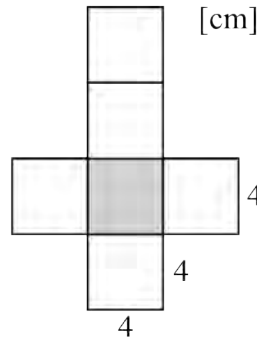
Leila, Adrian and Kim make different types of packages from paper that they fold together. Each package has a volume of 64 cm^3 .

Leila makes a cube. She draws the cube first and then outlines the measurements. Then she draws the unfolded cube and outlines the measurements.

Leila's cube



Leila's drawing of the unfolded cube



- a) Adrian's package is a rectangular cuboid with a volume of 64 cm^3 . It is not a cube.
- Suggest measurements for length, width and height so that they correspond with the description of Adrian's rectangular cuboid.
 - Draw the rectangular cuboid and outline the measurements.
- b) Make a drawing of Adrian's unfolded rectangular cuboid and outline the measurements. Draw in actual size or to a suitable scale.
- c) Kim's package is a pyramid with a quadratic base area. The volume is 64 cm^3 .
- Suggest measurements for the sides of the base area and the height of the pyramid so that they correspond with the description of Kim's pyramid. Show how you arrived at these measurements.
 - Draw the pyramid and outline the measurements.
- d) Make a drawing of Kim's unfolded pyramid. Outline the measurements of the sides of the base area and the height of the triangles. Show how you arrived at the measurements. Draw in actual size or to a suitable scale.

