

Mathematics

Delprov D

ÅRSKURS

6

Elevens namn och klass/grupp

For the questions in this part you need to show how you work them out. Your working out must be clear enough so that someone else can read and understand what you mean.

If you do your calculations on your calculator then you must also show them on the paper. You can be given points for partially answered questions.

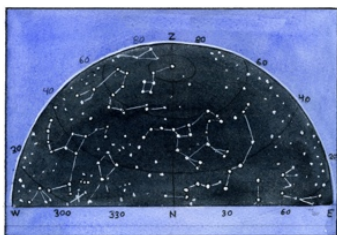
The teacher will assess:

- How you worked out the questions.
- What knowledge you show about mathematical concepts.
- Which methods you choose and how you use them.
- How well you show your solution.
- How well you use mathematical language.



When the pupils at Viktor's and Samira's school worked with the topic of space, they discovered that many of the pupils were very interested. So they started a space club where everyone from School Year 4 to School Year 9 who was interested could join in. The space club usually meets in the afternoons and has been allowed to borrow a room at the school where they can hold their meetings. They have been allowed to repaint and decorate the room, and everyone has helped to collect money to buy different things for the space club.

26.



Star chart
243 kr



Binoculars
599 kr



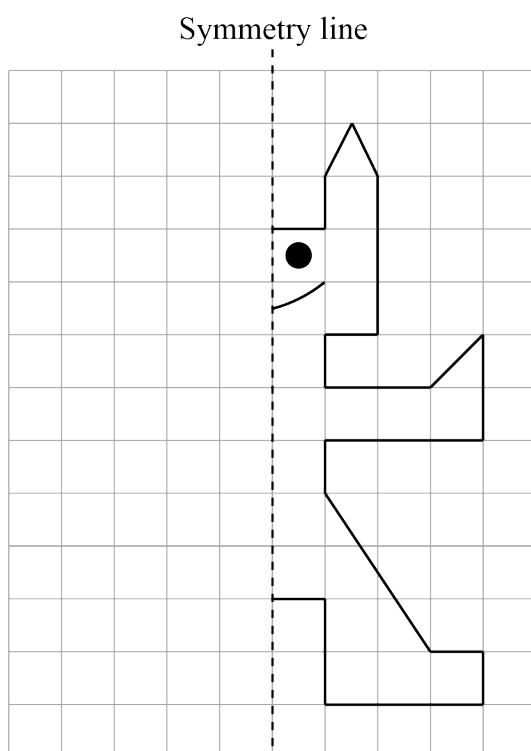
Telescope
1 995 kr

Elsa and Leo are buying things for the space club.
They buy six star charts, two pairs of binoculars and a telescope.
How much does everything cost altogether?
Show how you work this out.

(2/0/0)

27. Finish drawing the space alien. It must be symmetrical.

(2/0/0)



- 28.** The space club is selling bags of bread at 20 kr/bag.
Before they start selling they have 380 Swedish Crowns in change.
At the end of the day they have 3 240 Swedish Crowns in the kitty.
How many bags of bread have they sold?
Show how you work this out.

(1/1/0)

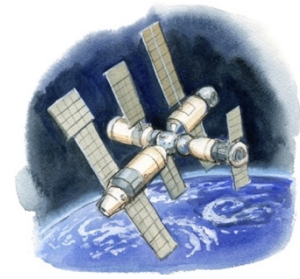


- 29.** Leo has 3 bottles of fizzy drink. Each bottle contains 1.5 litres.
He pours 20 cl of fizzy drink in each glass.
How many glasses will the fizzy drink be enough for?
Show how you work this out.

(1/1/0)



- 30.** Floating in space is a space station that is 108 metres long.
Robin builds a model of it in the scale of 1:300.
How long is Robin's model?
Show how you work this out.



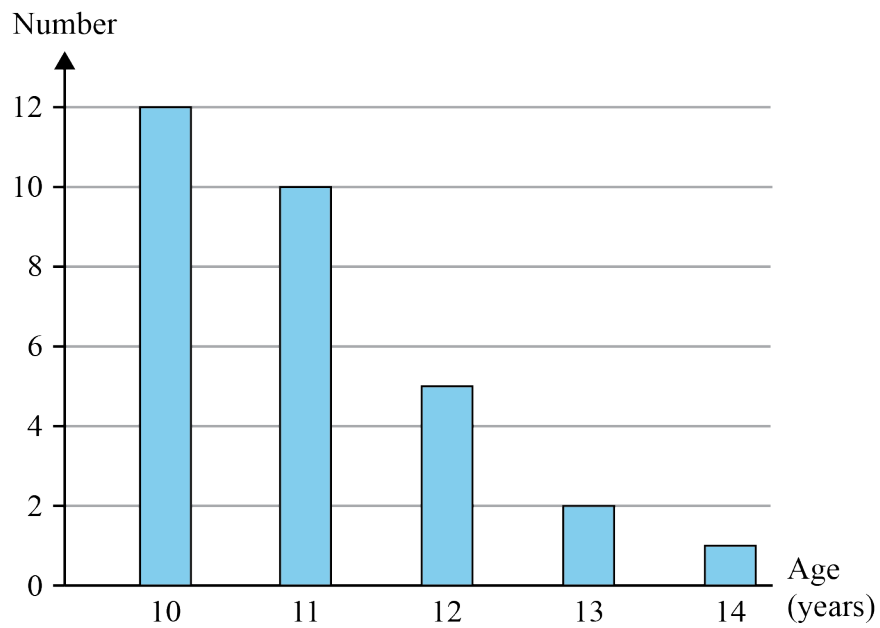
(1/1/0)

- 31.** Samira and Viktor are going to paint two walls.
One of the walls is 6 metres long and the other wall
is 2.6 metres long. The height to the ceiling is 2.5 metres.
On the tin of paint it says that 1 litre of paint is enough for 8 m².
They have 3 litres of paint. Will there be enough paint?
Justify your answer.



(1/2/0)

32. The members of the Saturn space club are of different ages.



- a) How many members are 12 years old? (1/0/0)

Answer: _____

- b) How many members does the club have? (2/0/0)
Show how you work this out.

- c) Calculate the average age of the members. (0/1/1)
Show how you work this out.

33. Robin, Elsa and Samira are collecting space cards.

- They have 137 space cards altogether.
- Robin has 3 times as many cards as Elsa.
- Samira has 3 cards less than Elsa.

How many cards does Elsa have?

Show how you work this out.



(0/2/1)

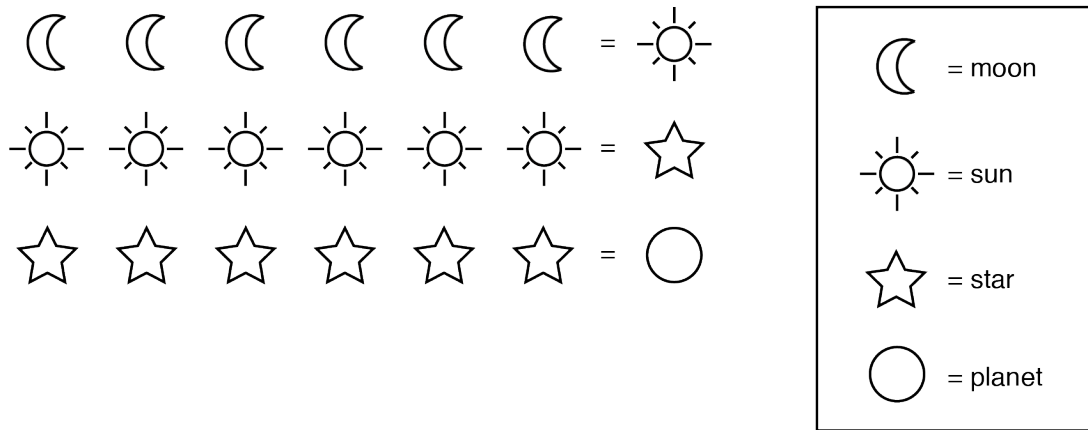
34. A car drives 70 km in an hour. A space rocket travels 28 000 km in an hour.

How many kilometres has the car driven when the space rocket has travelled 2 000 km?

Show how you work this out.

(0/1/1)

35. Viktor and Elsa invent a secret language.



- a) How many stars does Viktor get for 24 moons and 8 suns?
Show how you work this out.

(1/1/0)

- b) Three moons means 100. How is the number 16 400 written in the secret language?
 Answer with the number of planets, stars and suns.
Show how you work this out.

(0/1/2)

