Mathematics

Delprov C

Årskurs

6

Elevens namn och klass/grupp

Skolverket

For the tasks in this part, you must show your workings. Your workings must be clear enough so that another person can read and understand what you mean.

If you make calculations on the calculator they must be shown on the paper.
You can be given points for partially solving a task.

The teacher will assess:
- How you solve the tasks.
- What knowledge you show about mathematical concepts.
- Which methods you choose and how you use them.
- How well you show your workings.
- How well you use mathematical language.

You will meet Leo, Maja, Kevin and Samira who are in year 6. At their school, all the classes together will be organising a market for the pupils and their families. One group of pupils from various years is responsible for planning the market.

Various things that the pupils have made will be sold at the market and there will also be performances, a jumble sale, games and competitions. There will also be a small café.

The money that they make at the market will be given to charity. Some classes have already collected money in different ways over the school year.

18.

Citric acid
SEK 14

Caramel colouring
SEK 23

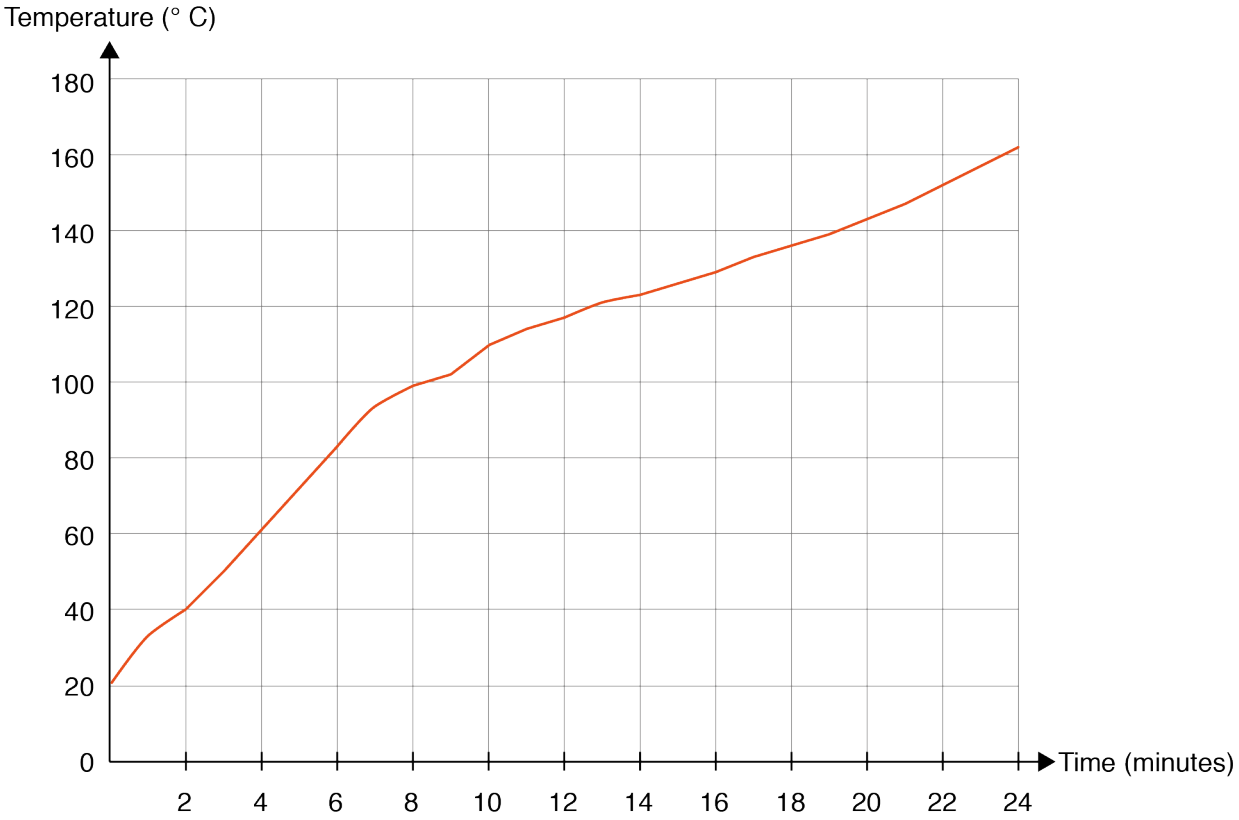
Pear essence
SEK 58

Samira and Leo are making sweets. They buy three cans of citric acid, two bottles of caramel colouring and three cans of pear essence.
How much do the ingredients cost together?
Show your workings.

(2/0/0)

19. Class 6C are selling bags of bread for SEK 20 per bag.
Before they start selling they have SEK 380 in change.
At the end of the day they have collected SEK 3 240.
How many bags of bread have they sold?
Show your workings.

(1/1/0)



20. Samira and Leo are making sweets. They heat up the caramel in a saucepan and measure the temperature.

a) What temperature is the caramel after 10 minutes? (1/0/0)

Answer: _____ ° C

b) The caramel starts boiling at 102 °C. (1/1/0)
It is done boiling once it reaches 162 °C.
For how many minutes has the caramel been boiling?
Show your workings.

21. Kevin and Maja have some beads.

Kevin's beads

Maja's beads

a) What percentage of Kevin's beads are yellow? (1/0/0)

Answer:_____%

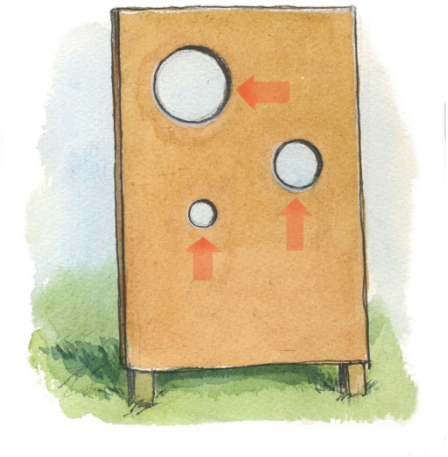
b) What percentage of Maja's beads are yellow? (2/0/0)
Show your workings.

c) Kevin and Maja make a necklace out of all the beads. (0/2/0)
What percentage of the beads in the necklace are yellow?
Show your workings.

22. Samira buys 2 cookies and 3 buns in the café. She pays SEK 54. (1/2/0)
Leo buys 4 soft drinks. He pays SEK 60.
Kevin buys 2 soft drinks and 1 bun. He pays SEK 42.
How much does 1 cookie cost?
Show your workings.

23. At the market, Maja throws three balls to earn points. (1/1/1)
The number of points she gets depends on which holes she throws the balls through.

- A ball through the smallest hole gives her five times as many points as the biggest hole.
- A ball through the middle hole gives her twice as many points as the biggest hole.
- If she throws one ball through each hole, she gets 120 points.



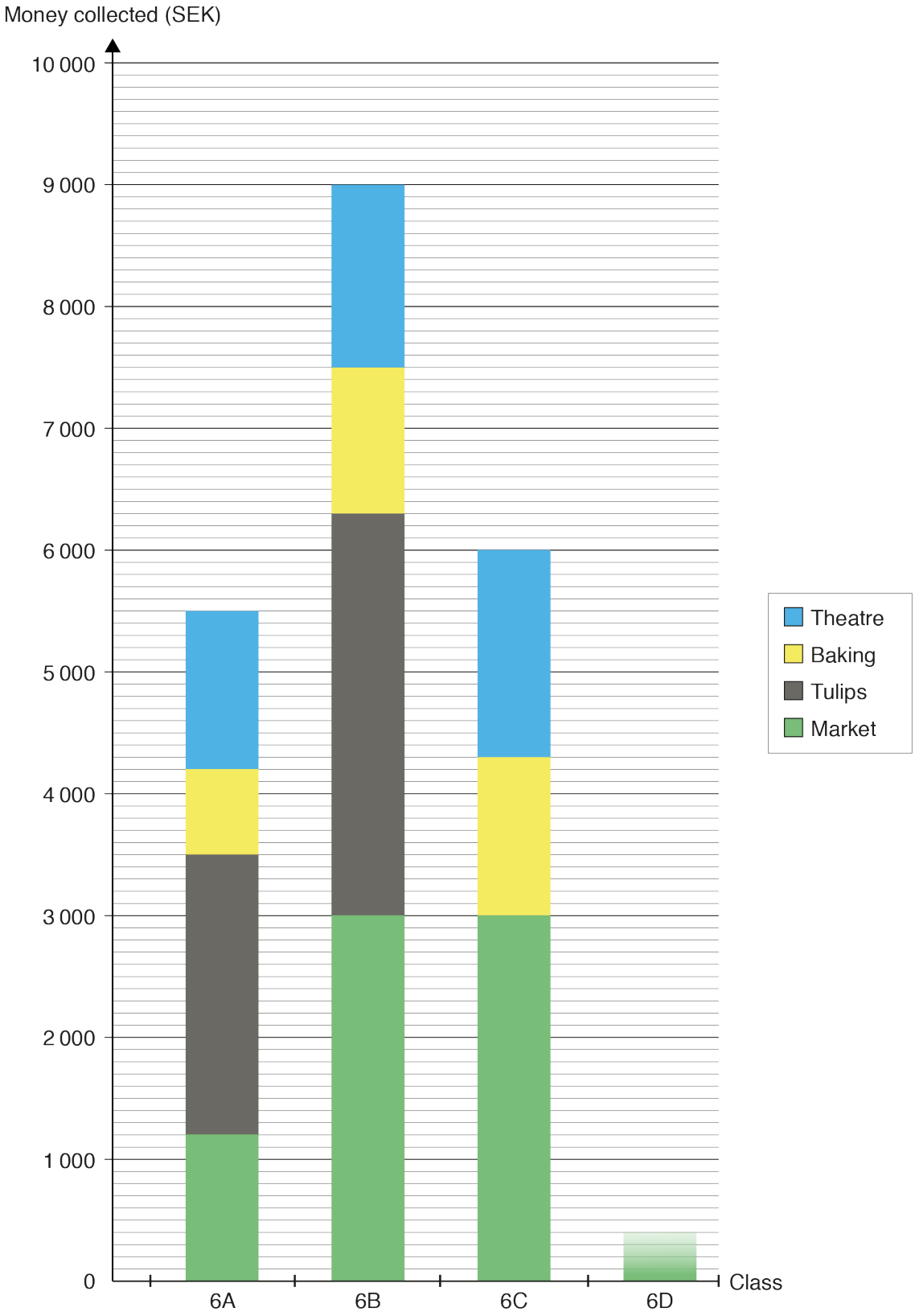
How many points does Maja get if she throws a ball through the smallest hole?
Show your workings.

24. At school there is a group planning the market. (0/1/1)
There are 20 people in the group and the mean of their ages is 12 years.
Three new people whose ages are 10, 11 and 15 join the group.
How does this affect the mean?
Circle and explain your answer.

It increases It decreases It does not change You cannot tell

Explain your answer.

25. The pupils in year 6 have collected money for charity.
The chart shows what the classes have done to collect money and how much each class has collected.



a) Class 6D has only collected money at the market. (1/0/0)
They have collected SEK 3 500.
Draw a bar for 6D on the chart.

b) How much money have classes 6A and 6B collected altogether by selling tulips? (1/1/0)
Show your workings.

c) What proportion of the money collected by 6B is from the theatre? (0/1/1)
Show your workings.

Please turn over!

26.

RECIPE

60 sweets

450 grams sugar
125 grams dextrose
1 dl water
2 tsp citric acid
2 ml caramel colouring
1,5 ml pear essence

a) Kevin and Maja are making sweets that the class will sell. (0/2/0)
A packet of dextrose contains 1 kg.
How many sweets can you make from this?
Show your workings.

b) They have 360 g of sugar that they want to use to make sweets. (0/1/2)
How much dextrose do they need?
Show your workings.

PRIM gruppen