Mathematics

Delprov D

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.

A market is held near the school at the start of the summer holidays. Samira, Kevin, Leo and Maja go there together. There is a lot to do and many nice things to see at the market.

There is also a funfair at the market place. To go on lots of rides, you can buy a day pass. If you only want to go on a few you can buy a ticket for a particular ride.

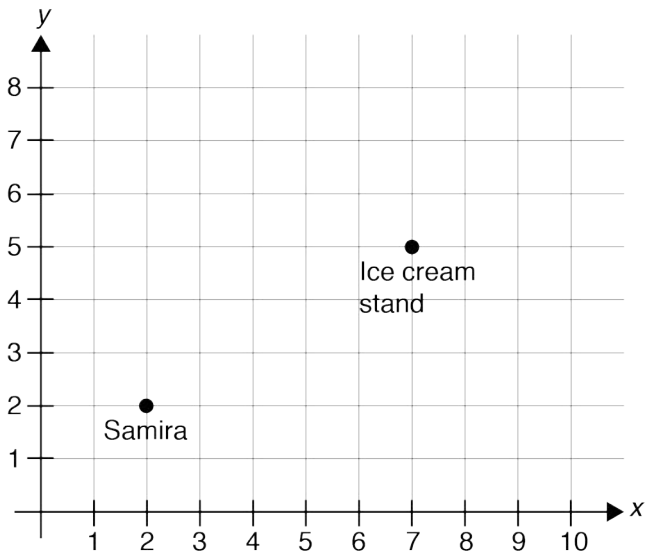
At the end of the day, Samira wants to play the wheel of fortune and Leo wants to buy lottery tickets. Samira says that she can feel that she is going to win. Leo says that you can calculate the chance of winning.

27. A family with two adults and three children buy day passes to the funfair. (2/0/0)
Day passes for adults cost SEK 280 each.
Day passes for children cost SEK 240 each.
How much does the family pay in total for the day passes?
Show your workings.

28. a) Write the coordinates of the ice cream stand. (1/0/0)

Answer: (,)

b) Samira is going to buy ice cream. (1/0/0)
On the way to the ice cream stand, she passes the flag pole.
The flag pole has the coordinates (5,3). Mark this spot with an x.



29. Samira and Kevin each buy an ice cream cone. (2/0/0)
Together they pay SEK 59. Samira's cone has three scoops of ice cream.
How many scoops does Kevin have in his cone?
Show your workings.

30. Kevin pours 8 dl of water into his water bottle. (2/0/0)
He drinks some of the water, leaving 25 cl in the bottle.
How much did he drink?
Show your workings.

31. Leo goes on a carousel known as the Super Spinner.
One go on the ride takes 4.5 minutes. It spins 8 times per minute.

a) How many spins does Leo do in one go on the ride? (2/0/0)
Show your workings.

b) The carousel has a circumference of 90 m. (0/2/0)
This means that Leo travels 90 m per spin.
How far does he travel in one go on the ride?
Show your workings.

32. Leo, Samira, Kevin and Maja pool the rest of their money. It is just enough for a candy lace. The lace is 1.4 m long.

a) Leo thinks that they should split the lace so that everyone gets a piece that is of equal length. How long is the piece that each of them receives? *Show your working.* (2/0/0)

Leo SEK 1

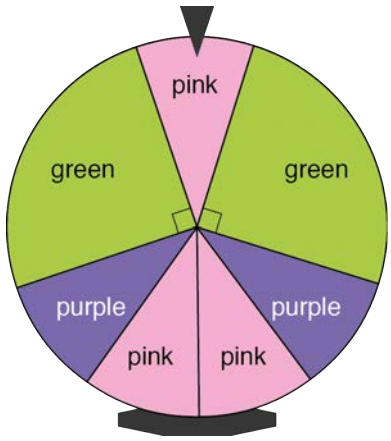
Samira SEK 10

Kevin SEK 3

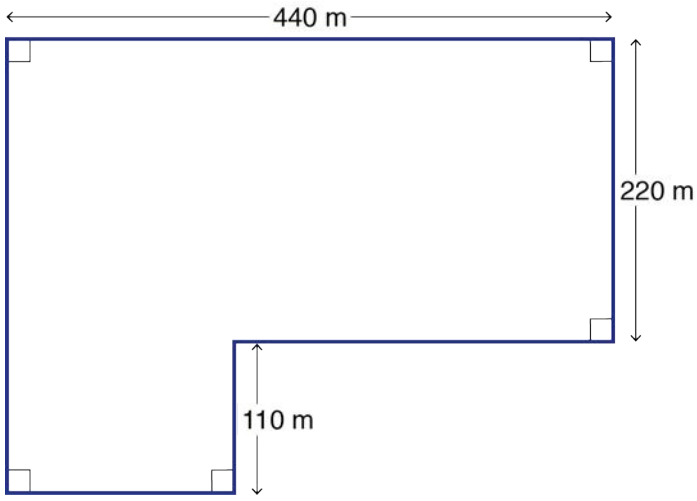
Maja SEK 6

b) Maja thinks that it is unfair to split the lace equally as they paid different amounts. How long is the piece that Kevin gets if they split the lace according to how much each person has paid? *Show your working.* (1/2/0)

33. Samira spins the wheel of fortune. (0/2/1)
A purple segment has the same size as a pink segment.
Leo says that the probability of the wheel stopping on pink is 30 %. Is Leo correct?
Explain your answer.

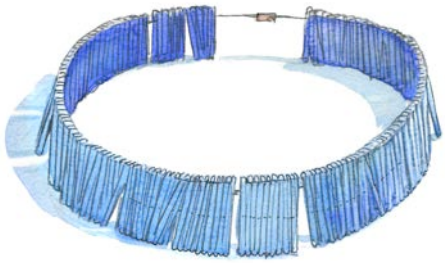


34. The figure shows the area of the market place. (0/2/0)
A fence is being put up around the area.
How many metres of fence is needed?
Show your workings.

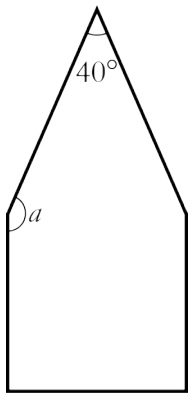


35. a) The probability of winning the lottery is 20 %. (1/1/0)
There are 25 winning tickets.
What is the total number of tickets in the lottery?
Show your workings.

b) In another lottery the probability of winning is 10 %. (0/1/2)
There are 450 losing tickets.
What is the total number of tickets in this lottery?
Show your workings.



36. The figure consists of a square and an isosceles triangle that are joined together. What is the angle *a*?
Show your workings.



(0/0/2)

PRIM gruppen