

Mathematics

Delprov D

Årskurs

6

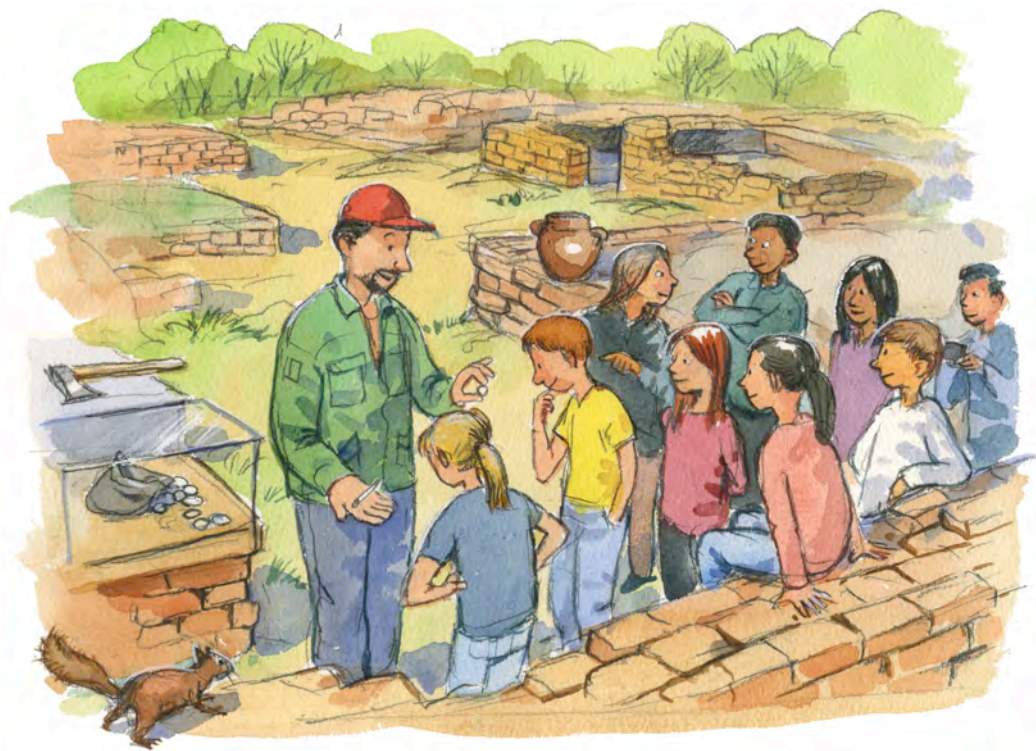
Elevens namn och klass/grupp

For most of the tasks in this part you must clearly show how you have solved the problem. Your written solution must be clear enough so that another person can read it and understand what you mean.

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

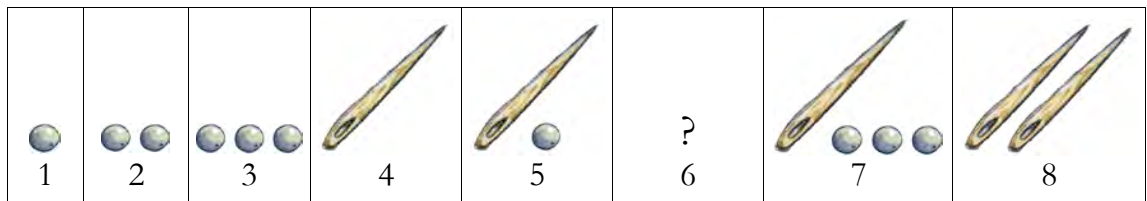
The teacher will assess the following aspects:

- How you solve the problem.
- What knowledge you show about mathematical concepts.
- What methods you choose and how you use them.
- How well you write your solution account.
- How well you make use of mathematical language.



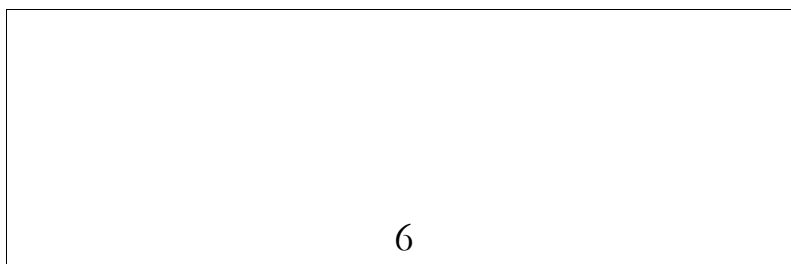
When class 6A enters the area behind the wall, they are joined by a guide. He shows them objects that have been found and tells them about the old villages. In the oldest village, they would write numbers using other symbols than the ones we use. From another village, which was not as old, they have found money. The coins had different values than our coins. The pupils try counting the way they did in the different villages. Kevin thinks it is strange that the penny was the most valuable.

22. In one village pearls, needles and axes were used to indicate numbers.
Leo and Maja try to make numbers using the village's system:

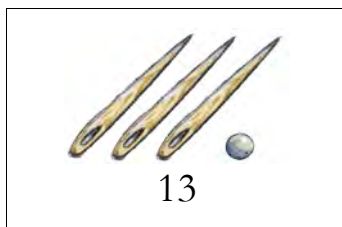


- a) Make the number 6 using the village's system.

(1/0/0)



- b) This is how they made the numbers 13 and 18.



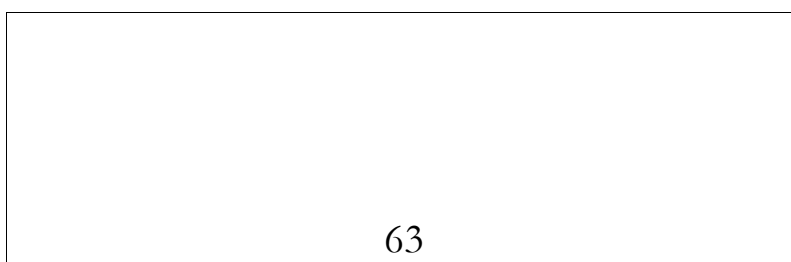
Which number is shown here?

(1/0/0)



- c) Make the number 63 using the village's system.

(0/2/0)



23. Samira and Kevin find a dice.
It has six sides.



- One side of the dice has a spear.
- Two sides of the dice have fish.
- Three sides of the dice have an eye.

- a) Kevin rolls the dice once. (1/0/0)
What is the probability (chance) of him getting a spear?
Write the answer only.

- b) Samira rolls the dice once. (0/2/0)
She wants to get either an eye or a fish.
What is the probability of her succeeding?
Show your working.

- 24 In the village the coins were called *öre*, *tug* and *penningar*.
Öre was the highest denomination and penningar was the lowest.
This is how much the coins were worth:

$$1 \text{ öre} = 3 \text{ tug}$$

$$1 \text{ tug} = 8 \text{ penningar}$$

- a) How many tug would you get for 12 öre?
Show your working. (2/0/0)

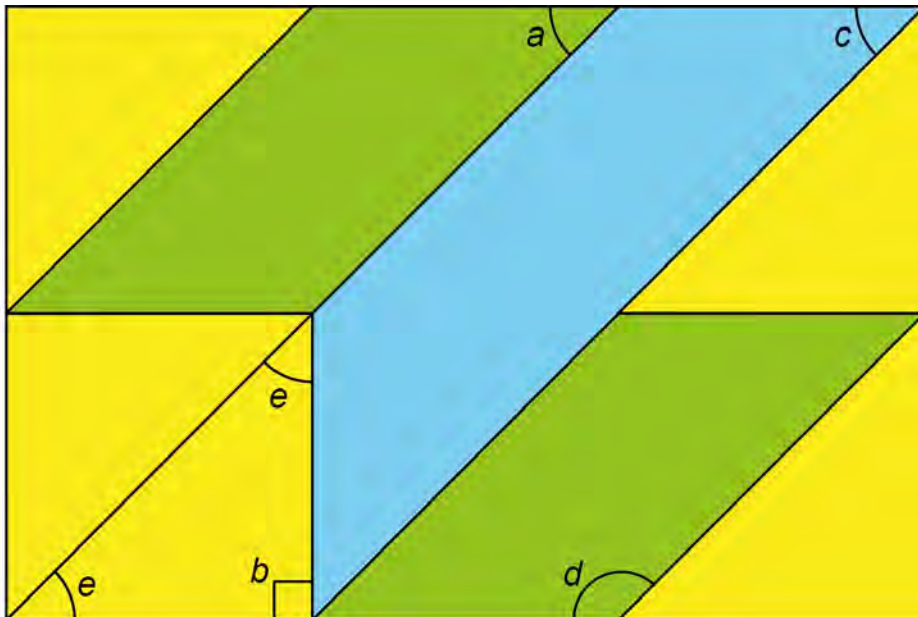
- b) One pot was worth 2 tug and 3 penningar.
How many penningar was the pot worth?
Show your working.



(0/2/0)

- c) A man sold 3 pots on the market.
How much did he get? Give your answer in öre, tug and penningar.
Show your working. (0/2/1)

25. The pupils find a mosaic made up of three geometric shapes in different colours. They see different angles within the mosaic.



- a) Write on the lines whether the angle is *right*, *acute* or *obtuse*. (2/0/0)

Angle **a** _____ Angle **c** _____

Angle **b** _____ Angle **d** _____

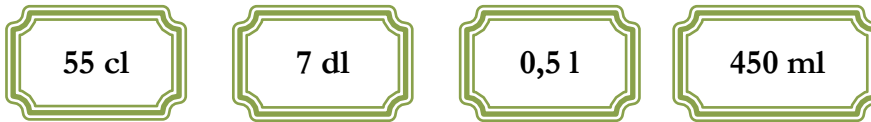
- b) How large is angle **b**?
Write the answer only. Answer: _____ (1/0/0)

- c) How large is angle **e**? *Explain your answer.* (0/2/0)

- d) How large is angle **d**? *Explain your answer.* (0/2/0)

26. Which volume is the largest?
Circle the largest volume.

(1/1/0)



Explain your answer.

27. A bag contains a number of different coins:

20 iron coins
10 bronze coins
8 silver coins
2 gold coins



- a) What percentage of the coins are iron coins?
Write the answer only.

(1/0/0)

- b) What percentage of the coins are gold coins?
Show your working.

(0/2/1)

28. There were 817 people living in the village. 241 of them were children. (1/2/0)
Among the adults there were 56 more women than men in the village.
How many men lived in the village?
Show your working.

29. In the village there were four different types of animals: (0/1/2)
pigs, sheep, chickens and cows.
- Every fourth animal was a pig.
 - One out of eight animals was a sheep.
 - Half of the animals were chickens.
 - The rest of the animals were cows. There were 50 cows.

How many animals of each type were there in the village?
Show your working.

