Till läraren

Välkommen till Kängurutävlingen – Matematikens hopp 2026
Ecolier

- Tävlingen genomförs under perioden 19 – 27 mars. *Uppgifterna får inte användas tidigare.*
- Du får tillgång till facit och ett kalkylblad. I kalkylbladet matar du in elevernas svar och får en sammanställning av klassens resultat. Facit öppnas klockan 12.00 på tävlingsdagen, lösenord till facit finns i mailet du fått.
- Redovisa resultatet senast *30 april*. Efter det görs både problem och facit fritt åtkomliga.
- *Tävlingen är individuell* och eleverna får arbeta i 60 minuter. De tre delarna ska genomföras vid *ett och samma tillfälle.*
- Eleverna behöver ha tillgång till papper för att kunna göra anteckningar och figurer. Linjal behövs inte.
- *Miniräknare eller sax får inte användas. Observera att telefoner, datorplattor och datorer inte heller får användas.*
- Läs igenom problemen själv i förväg så att eventuella oklarheter kan redas ut.
- Kontrollera att kopiorna blir tillräckligt tydliga så att nödvändiga detaljer syns.
- Besök *Kängurusidan* på ncm.gu.se/kanguru där vi publicerar eventuella rättelser och ytterligare information.
- Samla in problemformulären efter tävlingen. Problemen får inte spridas utanför klassrummet förrän efter 30 april, men ni får gärna arbeta med problemen i klassen.

Mikael Passares stipendium
Mikael Passare (1959–2011) var professor i matematik vid Stockholms universitet. Han hade ett stort intresse för matematikundervisning på alla nivåer och var den som tog initiativ till Kängurutävlingen i Sverige. Mikael Passares minnesfond har instiftat ett stipendium för att uppmärksamma elevers goda matematikprestationer. Information om hur du nominerar elever kommer tillsammans med facit och kommentarer.

Lycka till med årets Känguru!

e-post: kanguru@ncm.gu.se

För administrativa frågor, vänd dig till Ann-Charlotte Forslund:
ann-charlotte.forslund@ncm.gu.se
031–786 69 85

För innehållsfrågor, vänd dig till Ulrica Dahlberg:
ulrica.dahlberg@ncm.gu.se

Svarsblankett

Markera ditt svar i rätt ruta

Uppgift	A	B	C	D	E	Poäng
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
					SUMMA	

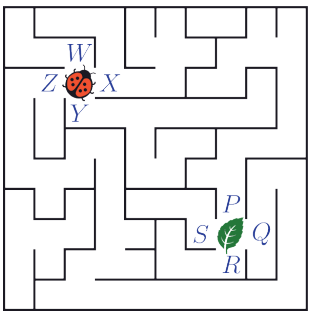
Namn:.....

Klass:.....

Kängurutävlingen – Matematikens hopp 2026
Ecolier

Three point problems

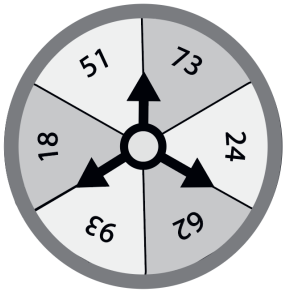
1 How does the ladybird need to walk to get to the leaf?



A: From X to P
B: From Y to P
C: From Z to P
D: From X to Q
E: From Z to Q

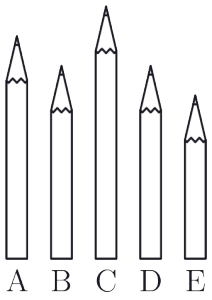
[*Mexico*]

2 Nils has a spinner. He can spin the arrows.
Which three numbers can the arrows point to after one spin?



A: 73, 24, 18
B: 18, 62, 24
C: 73, 93, 51
D: 51, 24, 93
E: 93, 51, 62

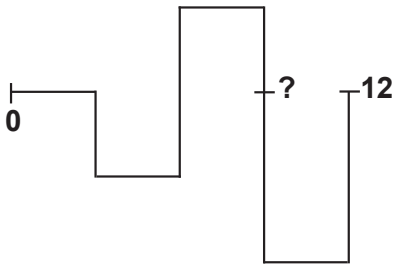
3 Finn has 5 pencils.
The shortest one is blue.
The green and red pencils are the same length.
The black pencil is shorter than the yellow one.
Which pencil is the black one?



A B C D E

[*Germany*]

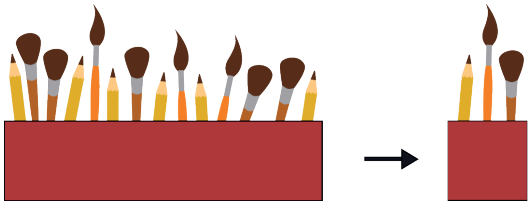
4 This numberline is folded in severeal places.
What number is found at question mark?



A: 3 B: 5 C: 6
D: 7 E: 8

[*Sweden*]

5 Liv has a big box with pencils and brushes.
She takes pencils and brushes from the box to make smaller boxes, as shown.
In each small box she puts one pencil and one of each kind of brush.
How many such small boxes can she make?

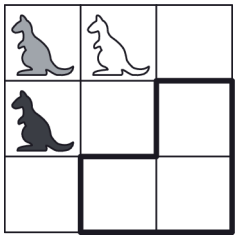


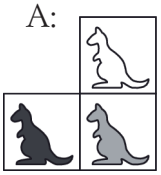
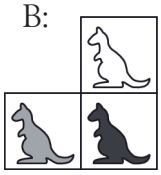
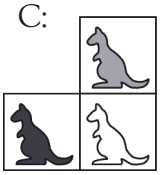
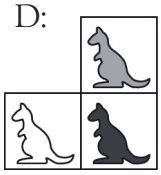
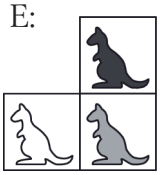
A: 2 B: 3 C: 4 D: 5 E: 6

[*Switzerland*]

6 In each square there is a kangaroo.
Each row and each kolumn should have
one grey, one white and one black kangaroo.

What piece should be placed in the outlined section?



A: 
B: 
C: 
D: 
E: 

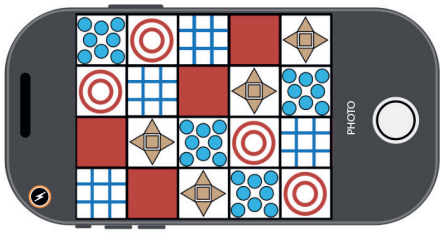
[*Germany*]

7 Anna is 7 years old and her brother is 2 years old.

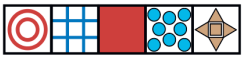
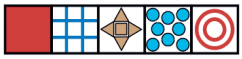
In how many years will Anna be twice as old as her brother?

A: 1 B: 2 C: 3 D: 4 E: 5

8 A floor is made of five different tiles.
The tiles are laid in a repeating pattern.
Samuel takes a picture of the floor.



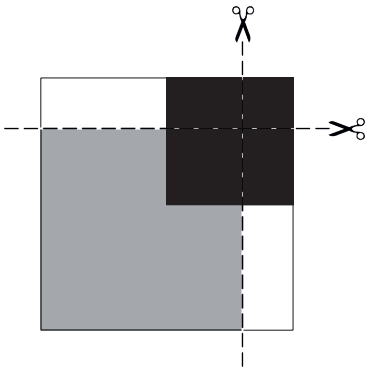
What is the repeated pattern of the five tiles?

A: 
B: 
C: 
D: 
E: 

Four point problems

9 A white square is placed on the table.
A grey square is placed on the white square
and a black square is placed on the top, as shown.

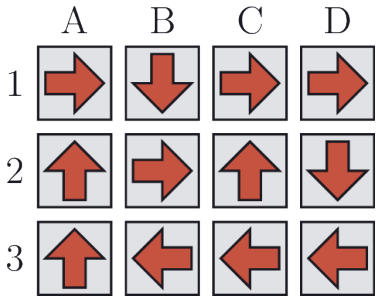
How many squares will you get if you
cut along the dotted lines in the picture?



A: 3 B: 4 C: 5 D: 7 E: 9

10 Each arrow shows how a robot moves from one square to the next.
The robot visits each square exactly once.

In which square must the robot start?



A: A1 B: B1 C: C2 D: D2 E: A3

[*Indonesia*]

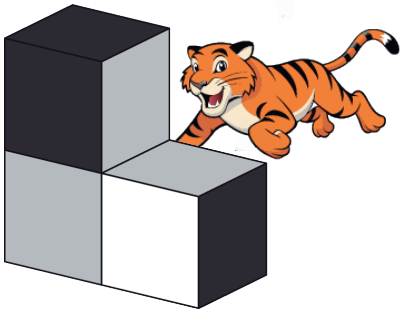
11 Lukas has 4 bags with a total of 25 apples.
He takes the same amout of apples from each bag.
Afterwards, there is 1 apple in one bag, 2 apples in one bag and 3 apples in each of the last two bags.

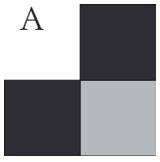
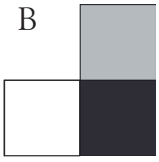
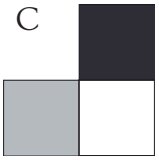
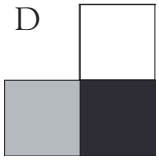
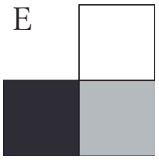
How many apples could Lukas have taken from each bag?

A: 1 B: 2 C: 3 D: 4 E: 5

12 Julia has put 3 blocks together, as shown.
All blocks are identical:
Every block has two faces of each colour.
Black and white are always on opposite faces.
Grey is always opposite grey.

A tiger looks at it from the side.
What does the tiger see?



A 
B 
C 
D 
E 

[*Brazil*]

13 A hotel has 6 vacant rooms. Each room can accommodate either 3 or 4 people.
A group of 20 people comes to stay at the hotel.
They fill up all the rooms at the hotel.

How many of the rooms can accomodate 4 people?

A: 1 B: 2 C: 3 D: 4 E: 5

14 Johan wishes to write the numbers 2, 0, 2 and 6 in the squares, so that in each row and each column there is exactly one 0, one 6 and two 2's.
He has already written several numbers. When he is done, he adds the numbers in the two squares that have a question mark.

2			
	0		?
		2	
	?		6

What is the sum of the numbers he adds?

A: 0 B: 2 C: 4 D: 6 E: 8

[*Poland*]

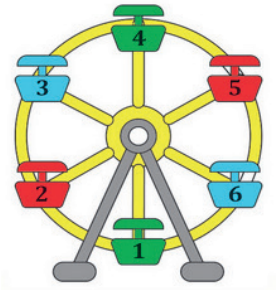
15 Carlo, Eva and Frans buy ice cream. One of them buys strawberry ice cream, one buys vanilla ice cream and one buys chocolate ice cream.
One of them buys 1 scoop, one buys 2 scoops and one buys 3 scoops. We know that:
Cela does not buy strawberry ice cream and chooses the smallest amount.
Eva does not buy chocolate ice cream.
The chocolate ice cream is the largest.

Which ice cream does Frans buy?

A: 2 scoops of strawberry ice cream
B: 1 scoop of vanilla ice cream
C: 3 scoops of strawberry ice cream
D: 2 scoops of vanilla ice cream
E: 3 scoops of chocolate ice cream

[*Poland*]

16 The small Ferris wheel in the picture has 6 cabins.
At the fair, there is a bigger Ferris weel with more cabins.
They are also numbered consecutively starting from 1.
When cabin number 3 is completely at the bottom, the top cabin is number 12.

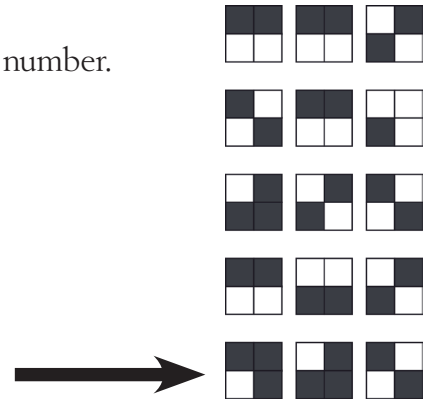


How many cabins are there in the big Ferris weel?

A: 12 B: 15 C: 18 D: 20 E: 26

Five point problems

17 Each pattern in the five rows represent a three-digit number.
Each digit from 0 to 9 has its own unique pattern.
The five numbers are:
183 451 521 872 882
but they are in a different order in the picture.



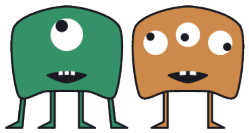
Which number is represented in the last row?

A: 183 B: 451 C: 521 D: 872 E: 882

[*China*]

18 In a village far beyond the mountains there are two types of monsters:
- ★ monsters with 1 eye and 4 legs
- ★ monsters with 3 eyes and 2 legs

The monsters have 9 eyes and 16 legs in total..



How many monsters with 1 eye are there in the village?

A: 1 B: 2 C: 3 D: 4 E: 5

[*Germany*]

19 Sam has built towers from cubes on a square grid.
The numbers tell us the hight of the tower in each square.
If Sam looks form the front, as shown by the arrows,
ha cannot see towers that is behind a higher tower.

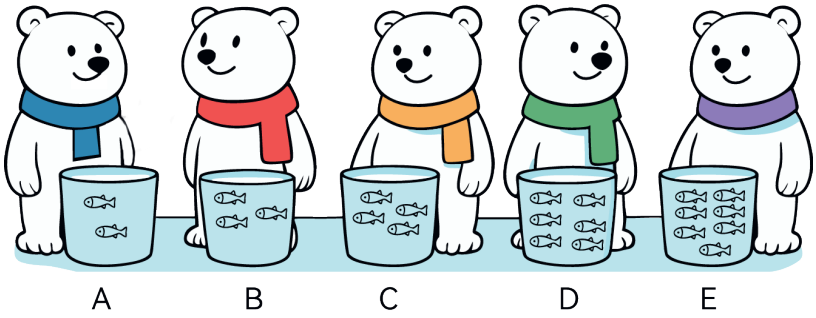
4	8	8	6
2	6	6	8
6	4	2	4
2	2	4	6

How many towers can he see?

A: 8 B: 9 C: 10 D: 11 E: 12

[*Germany*]

20 The five polar bears Karl, Leo, Måns, Noah and Peter each have a bucket.
In the buckets they each keep the fish they have caught.



Karl says to Leo: If you give me 2 fish we have the same number of fish.
Måns says to Karl and Leo: I have half the number of fish that you two have in total.

Which bucket is Leo's?

A B C D E [*China*]

21 Ron wants to give Hermione 16 tulips for her birthday. Unfortunately he only has 7 tulips, but he can do magic. He knows two useful spells:
One spell can double the number of items he has.
The other spell can take away 3 of his items.

What is the smallest number of spells he needs to use, to end up with exactly 16 tulips?

A: 2 B: 3 C: 4 D: 5 E: 6

22 Lea, Mia and Ida each have a box of sticks..
One of them has sticks that are 1 cm long, another has sticks that are 2 cm long and the third person as sticks that are 3 cm long. We do not know which girl has which type of stick. Lea starts by placing one of her sticks on the ground. Then Mia places one of hers to the right of Lea's and then Ida places one of hers to the right of Mia's. They contiue placing sticks in the same order: Lea, Mia, Ida, Lea, Mia, Ida ….
When the line of sticks is 50 cm long they stop.

Which two sticks are at the beginning and at the end of the line?

A: 1 cm … 2 cm

B: 2 cm … 3 cm

C: 3 cm … 1 cm

D: 3 cm … 3 cm

E: 2 cm … 2 cm

[*Poland*]

23 Kurre, Nina and Hampus sit on a bench, in that order from left to right.
Every minute one of them moves to the middle.
First the one on the left moves to the middle.
Then the one on the right moves to the middle.
They continue moving in the same way.

Who will be in the middle after 15 minutes?

A: Kurre B: Nina C: Hampus

D: Both Kurre and Hampus could be there.

E: Both Kurre and Nina could be there.

24 Each square in a grid contains at least 1 pearl.
The numbers in the square show how many pearls in total there are in the neighbouring squares.
Two squares are nighbours if they share a side.

How many pearls are there in total in the nine squares?

2	4	3
7	7	3
4	6	5

A: 16 B: 17 C: 18 D: 20 E: 21

[*Estonia*]