

1

Es ist für uns eine Zeit angekommen

Jonas, Natalie and Tom want to sing a lot together during the Christmas season. Of course, they also want to learn new Christmas songs. In a song book, they find a list of Christmas carols. They think about which ones they know.



Jonas says: "I know 10 of these songs."

Natalie is astonished: "Well, I only know 7 of them."

Tom says: "And there are 8 songs that I know."

They realize that each of the songs is known by at least one of them. And there is no song that exactly two of them know.

How many of the songs do all three of them know?

(E) 6

(J) 5

(K) 4

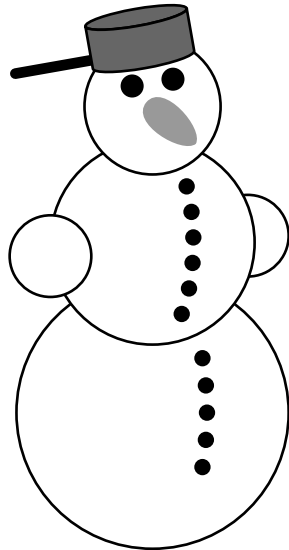
(Y) 3

(R) 2

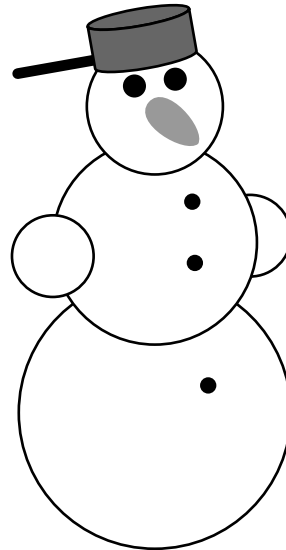
2

Schneemann, Schneemann, wie siehst du aus

Lara and Amelie are building snowmen in the garden. They have collected small stones for the buttons.



Amelie's snowman



Lara's snowman

“Will you give me some of your stones so that our snowmen have the same number of buttons?”, asks Lara.

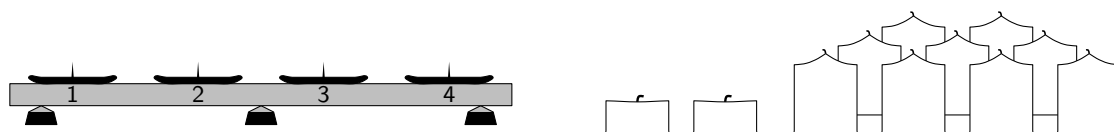
“Of course, no problem”, says Amelie.

How many stones does Amelie have to give to her?

- (E) 3
- (Ö) 4
- (G) 5
- (F) 6
- (Z) 7

3 Und zünden wir Lichter an

During the Advent season, Ronja's family has an Advent candleholder with 4 candles on the table. On the 1st Sunday in Advent only the 1st candle is lit, on the 2nd Sunday in Advent the 1st and the 2nd candle are lit, on the 3rd Sunday in Advent the 1st, the 2nd and the 3rd candle are lit and on the 4th Sunday in Advent all 4 candles are lit. If a candle has burned out, it is replaced by a new candle on the next Sunday in Advent before the candles are lit.



Ronja's father is astonished: "There are whole candles in the cupboard, but also 2 half ones."

"They are from last year", Ronja remembers. "The candles were only lit on the Sundays in Advent, and each time they were lit, their length burned down exactly half. In the end there were 2 half candles left."

Ronja's father thinks about it: "Let's say we only let the candles burn on the Sundays in Advent, like last year, and each time exactly half of their length. Maybe we can use whole and half candles right from the start, so that there are no half candles left at the end."

How must they place half and whole candles on the candleholder at the beginning?

- (A)
- (S)
- (D)
- (R)
- (I)

4

Weihnachten steht vor der Tür

The Christmas tree is being put up at school today. This year it is especially big. Several chains of lights are needed.

The caretaker has brought 4 chains of lights from the attic. Each one has a different number of lights: 12, 15, 18 and 20. Before he puts them up, he tests them to see if they still work. It turns out that only 3 of the chains of lights still work.

“Well, 3 chains of lights are enough”, the caretaker mumbles to himself.

The children help to decorate the tree with the 3 working chains of lights.

How many shining lights could there be in total?

(I) 43

(E) 47

(N) 49

(O) 51

(K) 55

5

Morgen Kinder wird's was geben

Henry, Frieda, Mert and Ariane have written wish lists. Each wish list contains exactly four wishes.

building blocks
a book
a railway
a card game

Henry

a card game
crayons
a basketball hoop
a book

Frieda

roller skates
building blocks
a card game
crayons

Mert

Ariane compares her wish list with the others. In doing so, she notices:

- One of her wishes is also on Henry's list, but not on Frieda's and not on Mert's.
- One of her wishes is also on Frieda's list and on Mert's, but not on Henry's.
- One of her wishes is also on Mert's list, but not on Henry's and not on Frieda's.
- One of her wishes is also on Henry's list and on Frieda's, but not on Mert's.

Which wishes are on Ariane's wish list?

- (M) a railway, crayons, roller skates, building blocks
- (F) a book, building blocks, crayons, a card game
- (U) a railway, crayons, roller skates, a book
- (W) a railway, building blocks, roller skates, a book
- (A) a book, crayons, roller skates, a card game

6

Lasst uns froh und munter sein

Full of anticipation for St Nicholas' Day, Lisa, Jule, Till and little Nico cleaned their shoes together yesterday.

Lisa was quick and only needed 4 minutes. Jule needed 8 minutes and Till 5 minutes. Nico was the last to finish after 15 minutes.

Today they tell their grandpa on the phone what they found in their shoes. They also talk about the cleaning of their shoes together.

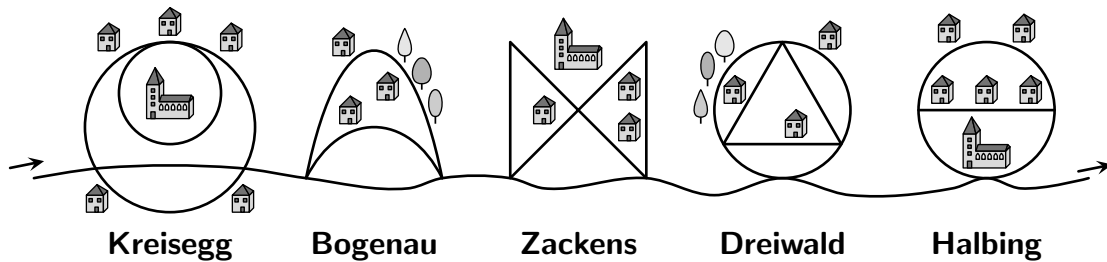
However, one of them has made a mistake. Who is it?

- (H) Lisa says: "I only took half as long as Jule."
- (Z) Jule says: "Till was almost as fast as Lisa."
- (Ö) Till says: "Nico took more than three times as long as Lisa."
- (G) The mum says: "Nico took almost twice as long as Jule."
- (R) Nico says: "And Till was slower than Jule."

7

Leise rieselt der Schnee

An elongated mountain village consists of 5 parts. After it snowed heavily during the night, Mr Huber clears the single-lane roads with his snow plough.



First he drives through Kreisegg and then through the other parts one after the other. If possible, he only wants to drive along each road section once. In four parts this is possible. In one part, however, Mr Huber has to drive at least one road section twice.

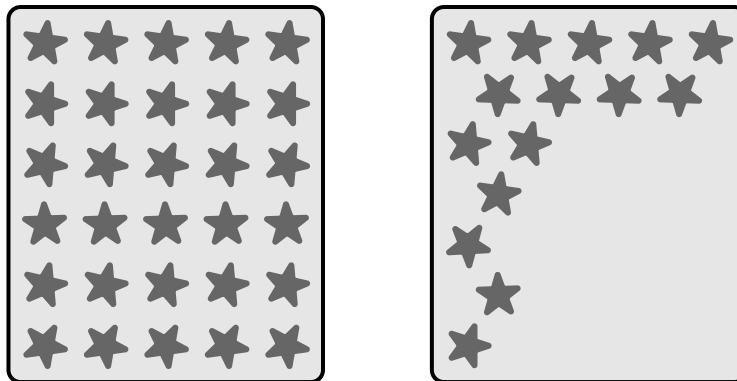
Which part is that?

- (A) Kreisegg
- (X) Bogenau
- (N) Zackens
- (Ü) Dreiwald
- (T) Halbing

8

In der Weihnachtsbäckerei

“What smells so good in here?” , exclaims Leonie’s mum when she comes home from work. Leonie and her father are baking biscuits in the kitchen. They have just cut out cinnamon stars. The first tray is about to go into the oven. Leonie arranges the cinnamon stars a little differently on the second tray.



“Look” , calls Leonie, “If I stagger the rows, one more row will fit on the tray.”

“But now there aren’t the same number in each row” , her father realises and wants to know if more cinnamon stars will fit on the tray.

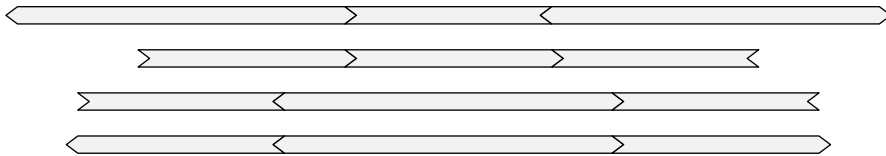
“Yes, definitely” , says Leonie and thinks about it. “There are indeed more” , she proclaims, “but not as many as I would have thought.”

How many more cinnamon stars are on the second tray than on the first?

- (I) 1
- (S) 2
- (H) 3
- (Ä) 4
- (B) 5

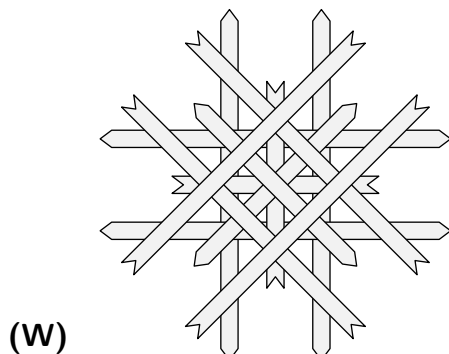
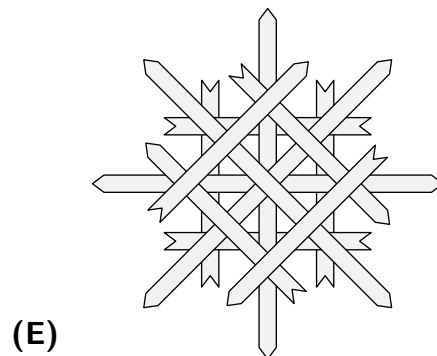
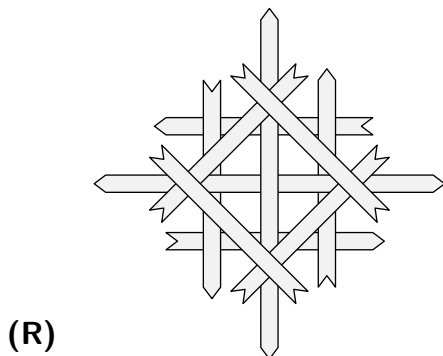
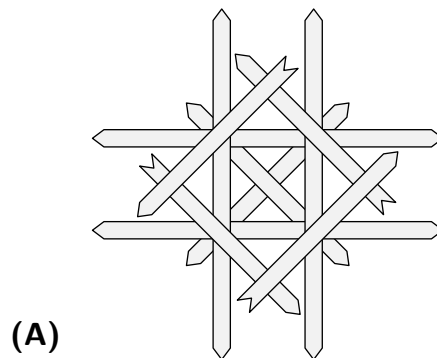
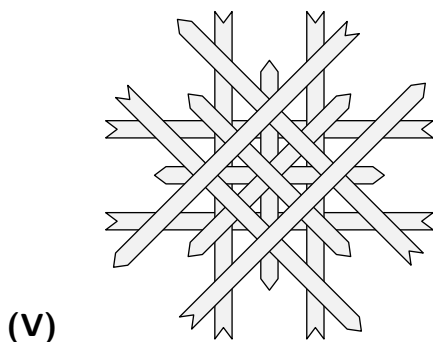
9 0 Tannenbaum

Maksym crafts straw stars for the Christmas tree. For the next star, he flattened four straws and cut them into short and long strips:



Maksym then creates a star from these strips and glues it together. He uses all the strips that he has cut.

Which star could Maksym get?



10

Sind die Lichter angezündet

“Sind die Lichter angezündet,” hums Mrs Wonne to herself as she lights the second candle on the Advent wreath on the table. But when she leaves the room briefly and returns, all the candles are out again.

Someone has played a trick on her. Her four sons sit around the table and look at her with innocent faces.

Come on, which one of you blew out the candles?”, the mother asks.

“None of us did”, replies Joris quickly. “But it was Piet”, claims Laurenz.

“Not true at all”, Piet defends himself, “Laurenz blew them out.”

Finally Nick says: “I did it.”

The mother smiles and says: “I can see that all four of you are fibbing.”

And she’s right: None of the four was telling the truth.

But the mother still manages to find out who blew out the candles.

Who was it?

(N) none of the four

(O) Joris

(T) Piet

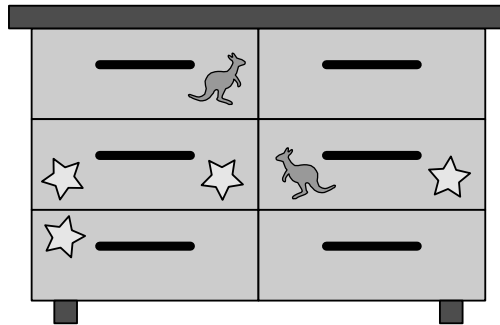
(M) Laurenz

(E) Nick

12

So viel Heimlichkeit

Marleen has crafted, painted and baked presents for her family in the time before Christmas. She wrapped the presents nicely and then hid them in the chest of drawers in her room. Each present is in a different drawer.



- (1) The present for her little sister is in a drawer without a sticker.
- (2) The present for her older brother is in the drawer directly to the left of the drawer with the present for her mum.
- (3) The presents for her parents are directly above each other.
- (4) The present for her older sister is in a drawer with two stickers.
- (5) The present for her little brother is not at the bottom left.

In which drawer is the present for Marleen's little brother?

- (E) top left
- (F) left in the middle
- (U) top right
- (D) right in the middle
- (W) right bottom

13

Fröhliche Weihnacht überall

To get into the mood for Christmas, Manfred puts on his old record with Christmas songs.

Suitably, the front side has a playing time of exactly 24 minutes.

Unfortunately, it cracks quite often during playback because the record has a long scratch that extends from the centre to the edge. Every time the needle moves over the scratch, it cracks once.



Manfred knows that the record spins exactly 100 times in 3 minutes. He thinks about how many times it will crack in total if he plays the front of the record exactly once.

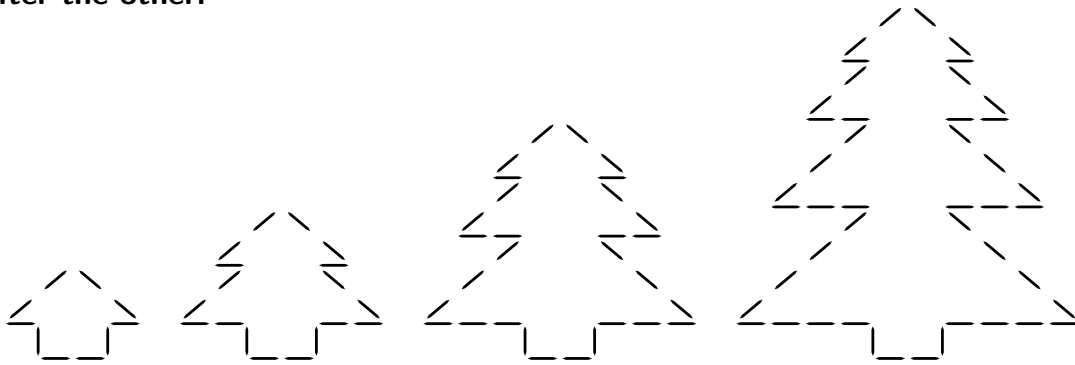
How many times does it crack in total?

- (E) 240 times
- (T) 300 times
- (S) 420 times
- (K) 660 times
- (D) 800 times

14

Bald nun ist Weihnachtszeit

Liam has laid Christmas trees with toothpicks. They get bigger and bigger one after the other.



Liam wants to make more Christmas trees using the same pattern.

How many toothpicks does the 6th Christmas tree in the row consist of?

- (Z) 50
- (A) 60
- (G) 70
- (Y) 80
- (F) 90

15

Kling, Glöckchen, klingelingeling

“Why are there four bells hanging on your door?”, shouts Kilian as he is about to enter his sister Selma’s room.

“I found them at Grandma’s”, shouts Selma back. “They all sound very different. You have to ring my two favourite bells first, then you can come in.”

“In whatever order?”, Kilian wants to know.

Selma calls out: “No, you have to ring the bells in the right order too.”

“I’ll have to try so much!”, complains Kilian.

“Nonsense”, says Selma, “there aren’t that many possibilities.”

How many possibilities are there?

(P) 10

(E) 12

(L) 14

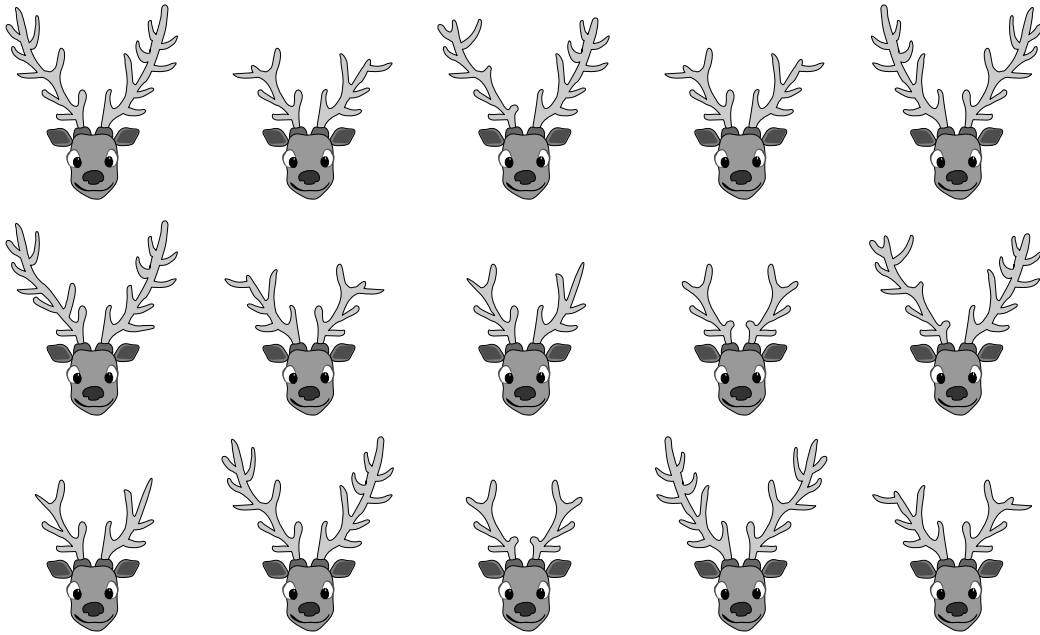
(S) 16

(N) 18

16

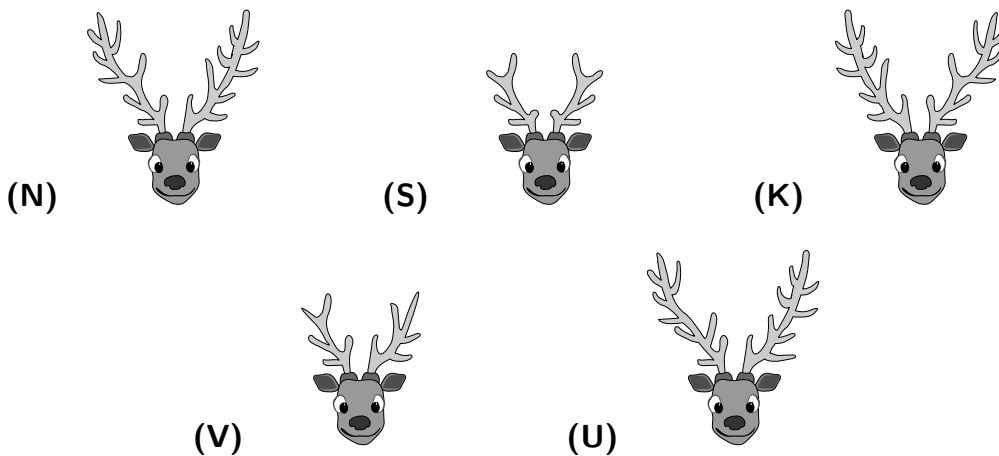
Rudolph, the red-nosed reindeer

Isabell has an earworm. She just can't get "Rudolph, the red-nosed reindeer" out of her head. She even dreamt about it last night. In her dream, lots of reindeer faces appeared.



With the exception of one reindeer, each reindeer can be seen exactly twice.

Which reindeer can only be seen once?



17

Guten Abend, schön Abend

At the Museum of Technology, during Advent a robot is being demonstrated by an employee. When Georgi and Zoé are there, it sings Christmas carols. Zoé calls out: "Please sing a Christmas carol!" And the robot sings:

Wahai Fir, Wahai Fir, Pehea Gwyrdd Ovat Viaj Foglie

"Oops", says the employee, "We already had that problem yesterday. He sings every word in a different language again." She shouts energetically: "Please sing the song in the right language!"

And now it works. The robot sings the beginning of the song again, but now in the right language.

What could the robot sing?

- (B) Guten Abend, schön Abend, es weihnachtet schon
- (H) O Tannenbaum, o Tannenbaum, wie grün sind deine Blätter
- (K) Ruprecht, Ruprecht, guter Gast, hast du mir was mitgebracht?
- (R) Jingle bells, jingle bells, jingle all the way
- (G) Stille Nacht, heilige Nacht, alles schläft, einsam wacht

18

Oh, es riecht gut

Theo has a cold and can't smell properly. This is sad as the whole house smells nice because Theo's sister Ida has been baking. There are 4 types of biscuits in the kitchen: orange biscuits, cinnamon stars, ginger biscuits and gingerbread.

"Let's go", Ida says to Theo, "We'll test how well you can smell!"

Ida lets Theo smell the 4 types blindfolded.

Theo guesses in turn:

1. type: "These are cinnamon stars or orange biscuits."
2. type: "These are definitely not ginger biscuits."
3. type: "These are orange biscuits or ginger biscuits."
4. type: "Of course, this is gingerbread!"

"Gasp, your cold is really bad", Ida states. "You've guessed wrong every time."

Theo becomes perplexed: "Wrong every time? Then I know in which order the types were."

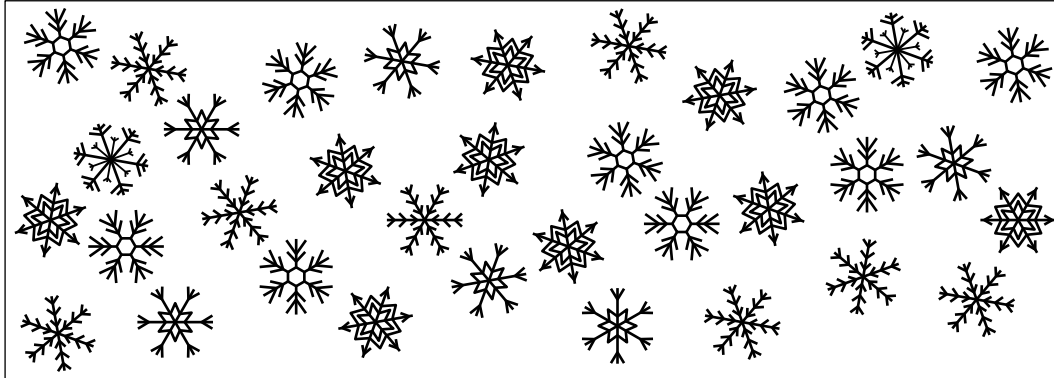
In which order did Ida let Theo smell?

- (I) cinnamon stars, ginger biscuits, gingerbread, orange biscuits
- (D) gingerbread, ginger biscuits, cinnamon stars, orange biscuits
- (A) ginger biscuits, orange biscuits, gingerbread, cinnamon stars
- (F) cinnamon stars, orange biscuits, gingerbread, ginger biscuits
- (U) orange biscuits, ginger biscuits, cinnamon stars, gingerbread

19

Schneeflöckchen, Weißbröckchen

The snowflakes are swirling outside and Felicitas is sitting inside making Christmas presents. Using snowflake stamps, she has transformed a simple sheet of paper into pretty wrapping paper.



There are different types of snowflakes on the wrapping paper.

How many types are there?

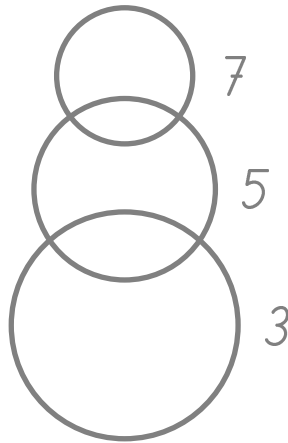
- (O) 4
- (C) 5
- (S) 6
- (Ü) 7
- (H) 8

20

Schneemann baun und Schneeballschlacht

It snowed today. "Come", calls Alessia to her friends Lotte, Yousuf and Noya. "We're going to do target throwing with snowballs!"

The children quickly draw three circles in the snow.



"Whoever hits the big circle gets 3 points", suggests Lotte. "For the medium circle there are 5 points and for the small circle 7 points."

"Great!", shouts Yousuf. "And whoever hits a part that belongs to two circles receives the sum of the points from these two circles."

Noya starts. She throws 3 times and hits 3 different parts.

"You have the highest possible score that you can have with 3 hits in 3 different parts", Alessia realises.

How many points has Noya scored?

(X) 35

(J) 33

(A) 29

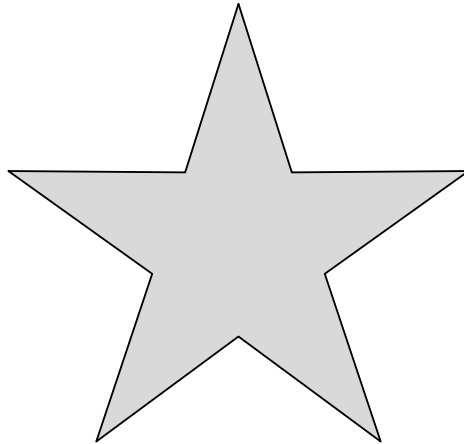
(N) 27

(M) 23

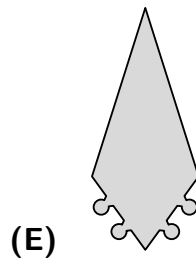
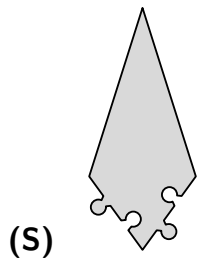
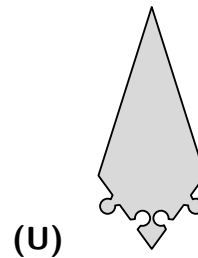
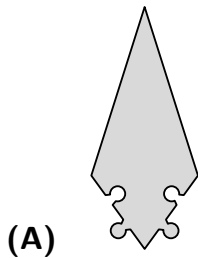
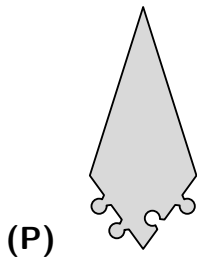
21

Sterne über stillen Straßen

Julian has come up with something special to give as a gift this year: a star puzzle. Five identical puzzle pieces should be put together to form a five-pointed star.



What shape could the five puzzle pieces have?

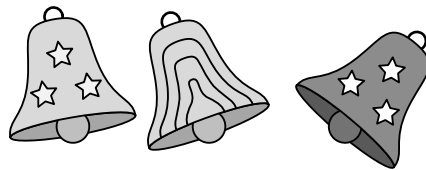


22

Süßer die Glocken nie klingen

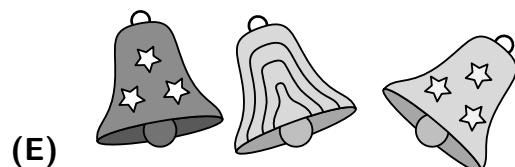
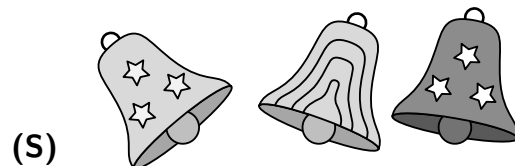
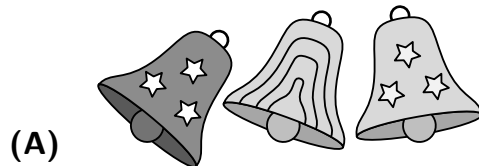
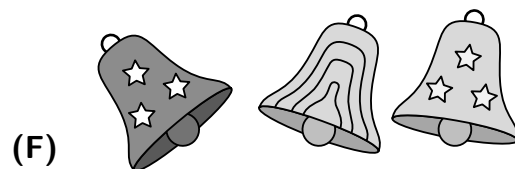
Carolin has painted something on her kitchen window with window paints. Her nephew Jonathan wants to visit her today to see what she has painted.

Already from a distance Jonathan recognizes three pretty bells.



Then he goes inside, where his aunt has already prepared some hot chocolate.

What does Jonathan see when he looks at the three bells from inside?



23

Es schneit, es schneit

Today is a wonderful winter's day. The five friends Adrian, Ben, Carla, David and Emma meet up on the sledding hill. Adrian has brought his big, super-fast steering bob with him. They are all curious to see how fast they can hurtle down the slope.

First Adrian rides together with Ben.

Then Carla, David and Emma ride in a threesome.

Subsequently, Emma and Adrian drive together.

Shortly afterwards, Carla, Emma and Ben hurtle down the slope.

Then Carla grabs the bobsleigh and rides alone.

And finally Ben and David ride together.

Before they go home, there should be one last ride so that everyone has ridden the same number of times. Who will ride this time?

- (V) Adrian and David
- (N) David and Ben
- (J) Adrian, David and Emma
- (I) Adrian and Carla
- (S) Ben, David and Emma

24

Stille Nacht, heilige Nacht

Today is Christmas Eve. While the family decorates the Christmas tree and sings Christmas carols, Frederik wraps presents. He attaches a coded message to the present for his sister Milla. Then she has something to puzzle over.

Frederik wants to write:

F R Ö H L I C H E W E I H N A C H T E N

To encrypt, Frederik starts at the back with the N and writes every second letter from the back to the front. So, after the N he writes T, C, N, I, W, H and so on. When he has reached the front, Frederik writes the remaining letters from the back to the front, that means E, H, A, H, E and so on.

This is what Frederik's encrypted message looks like:

N T C N I W H I H R E H A H E E C L Ö F

To decode, Milla must proceed in reverse. She starts at the front and writes the letters from back to front in every second position, that means:

— — — — — H W I N C T N

Once she has reached the front, she has to write the remaining letters in the gaps in order from back to front, thus E, H, A, H and so on.

Frederik is curious to see if Milla can work it out.

The solution word in the Kangaroo Advent calendar maxi 2023 was also encrypted using Frederik's method.

What is the decrypted solution word?

— — — — —