

# STEM ARMENIA NATIONAL CONTEST

## May 2026

Dive into the world of creative thinking and intellectual abilities!

### 1. The Contest

The “STEM Armenia | May 2026” national contest consists of six critical thinking tasks that must be solved within four hours. The competition is open to students aged 13 to 18 studying in middle and high schools in Armenia. Students aged 18 may participate only if they have not yet graduated from a public or secondary vocational schools. Participation is free and pre-registration is not required, but is recommended. Answers must be submitted by 2:05 PM on the day of the competition via this [link](#), under the Participate tab.

### 2. Tasks

The tasks have varying degrees of difficulty, on a scale of 1 to 5. The scores for individual tasks are not listed, but the total score for all six tasks is 20. Participants may receive partial points if the solution or explanation is incomplete. Be sure to add explanations, otherwise you will not receive full points.

### 3. Use of Artificial Intelligence (AI)

The online format of the “STEM Armenia” contest allows participants to use a variety of resources, including AI chatbots. While the usefulness of AI in many questions is undeniable, in the case of complex queries its results can often be wrong. We strive to create tasks that require individual thinking and research skills. We can confidently say that direct copying and pasting of AI solutions will be easily detected.

### 4. Technical Considerations

We have taken steps to ensure a smooth technical process for the contest. To minimize potential issues with entering answers, we recommend using a computer or tablet, rather than a phone. If you experience technical difficulties, please try using **a different web browser**. Please note that we are unfortunately unable to provide individual technical support.

### 4. Warning

***When submitting solutions, you must guarantee that you are the sole author. DO NOT SHARE your solutions with other participants in the competition, otherwise you will be disqualified.***

## TASK #1

### ODD ONE OUT

Which city should not be on this list?



Author: A. Martirosyan

## TASK #2

### MEDICAL EMERGENCY

Artavazd's father has run out of insulin, and Artavazd must bring the medication from the regional center within four hours; otherwise, his father's condition will deteriorate. The road to the regional center consists exclusively of uphill and downhill sections. Artavazd's motorcycle is a rather old Russian model that consumes 2 liters of gasoline for every 10 kilometers. It can travel uphill at a speed of 15 km/h and downhill at a speed of 30 km/h. How many liters of gasoline does Artavazd need to cover the entire distance without refueling?



Author: S. Abajyan, image by Nano Banana

## TASK #3

### ACROSS YEREVAN ON BUS

These symbols perform the following actions:

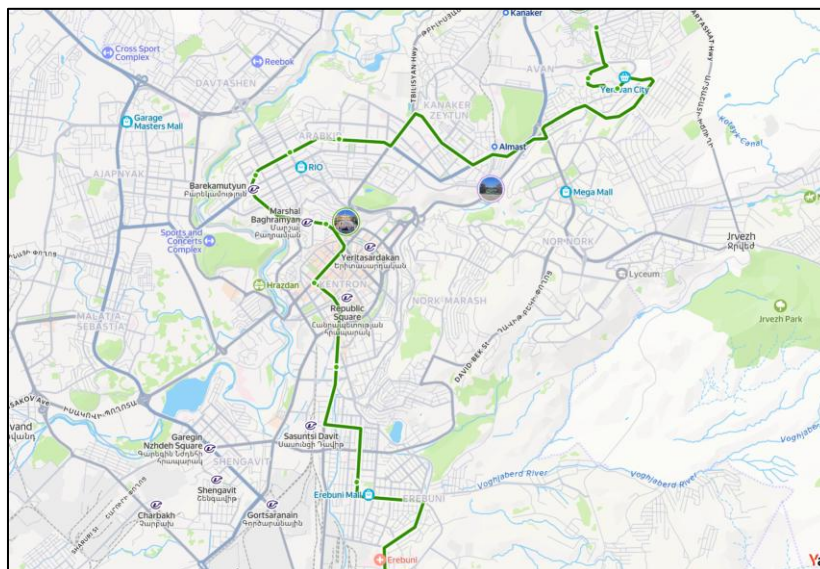
◆	subtract 2
◊	double the number
◇	swap the digits
★	add the sum of the digits to the number

$M$  and  $N$  are the numbers of two Yerevan buses. If the following equation is true, what is the total length of the bus  $N$  route in kilometers?

$$M \diamond \diamond \circ \star = N \diamond \star \circ \diamond$$

It is known that bus  $M$  goes street from  $S1$  to street  $S2$ , where

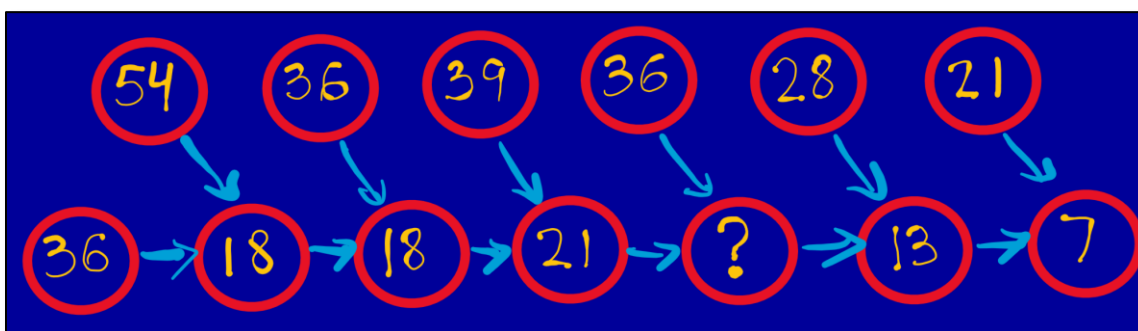
- $S1$  street is named after the only world capital whose name means "first day of the week," though it bore the name of a Soviet "Man of Steel" for thirty-two years.
- $S2$  street is named after a Russian epic novel that is considered one of the most significant works of 20th-century literature and was awarded the Nobel Prize in Literature.



## TASK #4

### NUMBER SERIES

Which number is hidden in the circle with the question mark?



## TASK #5

### LUNAR PANORAMA

What critical mistake did the author of this [futuristic video](#) make?



---

Author: A. Martirosyan, video by Flowmusic.ai

## TASK #6

### ARTIFICIAL INTELLIGENCE AND THE GOAT

Farmer Panos has registered for a five-week intensive course titled "Application of Artificial Intelligence in Agriculture" held in Vanadzor. To cover tuition and living expenses, Panos had to sell his only cow. He has only one goat left, which he decided to tie to the corner of his square farmhouse, whose sides are 10 by 10 meters. The house is surrounded by a grassy field, and Panos knows that a goat needs 31.4 square meters of pasture per day to feed.

What is the minimum length of rope needed to tie the goat to a house so that the grass supply will last exactly five weeks, and not a day longer?



---

Author: A. Martirosyan, image by Nano Banana