“Inter school Olympiad “XXI Century Skills”

Beynəlxalq Təhsil və İnnovasiya Mərkəzi

Edunomika

FULL NAME: _____

TEAM: _____

SCHOOL: _____

CLASS: _____

7-8

DURATION: 120 MINUTES

BAKU

20 04 2024

UNOFFICIAL TRANSLATION

Question 1. Which constellation's stars are these?
Maximum points = 3 points

Answer:

Question 2. These logos belong to which ministries?
Maximum points = 6 points (each item = 1.5 points)

a.  _____

b.  _____

c.  _____

d. 

_____

[2]

Question 3. Hasan made a purchase for 4 manats. He handed the seller a 20-manat banknote. In how many different combinations of paper money can the seller give Hasan his change?

Note: the cashier has no coins, only paper money, with 20 of each denomination available.
Maximum points = 5 points (all possible combinations = 4 points; final answer = 1 point)

Answer and solution:

Question 4. Numbers that read the same forwards and backwards are called palindromes. For example, 22, 464, and 3553 are palindromes. X is a three-digit palindrome. If 73 is subtracted from this number, the result is a two-digit palindrome. Find X.

Maximum points = 5 points (solution = 4 points; answer = 1 point)
Answer and solution:

Question 5. How many Sundays are there in June of this year, and on which dates do they fall?

Maximum points = 3 points (count = 1 point; dates = 2 points)

Answers:

Question 6. A grandmother was born x years ago, and her grandchild was born x months ago. The sum of the grandmother's and grandchild's ages is 65. How many years older is the grandmother than the grandchild?

Maximum points = 5 points (solution = 4 points; answer = 1 point)
Answer and solution:

Question 7. What do these abbreviations stand for?

Maximum points = 5 points (each item = 1 point)

YPX _____
MDB _____
SES _____
CAR _____
BDU _____

Question 8. Which events are associated with the following dates?

Maximum points = 5 points (each item = 1 point)
26 February _____
8 March _____
8 November _____
12 November _____
31 December _____

Question 9. What does each of these traffic signs mean?

Maximum points = 5 points (each item = 1 point)

a. _____

b. _____

c. _____

d. _____

e. _____

Question 10. In which city was this 1966 photograph taken?

Maximum points = 3 points

Answer:

Question 11. 540 digits in total were used to number the pages of a textbook. How many pages does the textbook have?
Maximum points = 6 points (solution = 4 points; answer = 2 points)

Answer and solution:

Question 12. Answer the following questions only with YES or NO.

Maximum points = 5 points (each item = 1 point)
Is it dangerous to use the elevator during an earthquake? _____
Is it possible to predict accurately one hour in advance whether or not it will rain? _____
When the traffic light is red, pedestrians cannot cross the road. But when the red light shows the "pedestrian-with-children" figure, can they cross? _____
Can a person with blood type AB+ be a blood donor for a person with any blood type? _____
When making an online purchase with a bank card, should we tell the online store seller the PIN code of the card? _____

Question 13. What is the largest two-digit number that is divisible (with no remainder) by 5 other two-digit numbers besides itself?

Maximum points = 3 points

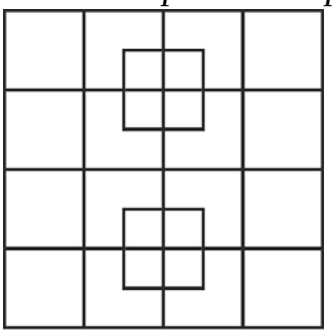
Answer:

Question 14. Answer each of the following questions.

Maximum points = 6 points (each item = 2 points)
Who currently has the most followers on TikTok?
_____
In which country was Facebook created?
_____
What is the source of revenue for the company "Wolt"?
_____

Question 15. How many squares can you find in this figure?

Maximum points = 3 points



Answer:

Question 16. Why do environmentalists campaign against throwing plastic containers into the sea? What benefit does this have?

Maximum points = 3 points

Answer:

Question 17. Rasim is planning a trip. The country he will visit shares borders with Portugal and France. What is the capital city of the country Rasim will visit?

Maximum points = 2 points

Answer:

Question 18. Next to each skeleton, write the animal it belongs to.

Maximum points = 4 points (each item = 1 point)

a. _____

b. _____

c. _____

d. _____

Question 19. All three rows of numbers follow the same logical pattern.

1, 3, 2, 6, 5, a

2, 6, 5, 15, 14, b

3, 9, 8, 24, 23, c

c – b – a = ?

Maximum points = 5 points (solution = 3 points; answer = 2 points)

Answer and solution:

Question 20. Below you are given a list of 7 countries. The next list contains the names of current or former leaders of these states. Next to each country's name, write the name of the corresponding leader (writing the letter is sufficient).

Maximum points = 7 points (each item = 1 point)

Albania	
Ireland	
France	
Switzerland	
Germany	
Georgia	
Iraq	

Leaders to choose from:

a. Pierre-Joseph-Auguste Messmer
b. Seán Francis Lemass
c. Horst Köhler
d. Bajram Begaj
e. Giuseppe Motta
f. Ahmed Hassan al-Bakr
g. Eduard Shevardnadze

Question 21. A store was selling a cake for 30 manats and was selling 85 cakes per day. The store's management offered a 10% discount and noticed that sales increased by 20%. Assuming sales depend on price as a linear function, if a cake is sold for 18 manats, how many manats' worth of sales will the store make in one day?

Maximum points = 7 points (solution = 5 points; answer = 2 points)

Answer:

Question 22. Some cells in the square shown are empty. Determine the rule by which the numbers were placed in the cells, and fill in the missing numbers in the empty cells.

Maximum points = 5 points (only for a fully correct answer)

1		4	
2	13		7
		8	
16	15		10

Question 23. This drawing was made in one of the Central Asian countries. In your opinion, which country is it, and what are the people depicted in the picture doing?

Maximum points = 4 points (each part = 2 points)

Answer:

Question 24. For each definition, write the matching English word. Only one letter may be written in each box.

Maximum points = 5 points (each item = 1 point)

a. A solid white or yellow fat made by churning cream and used for cooking and spreading on bread

__ __ T __ __ __

b. A person that has taken first place in a contest or game

__ H __ __ __ __ __ __

c. A period of rest from school, work, or other activities

__ __ C __ __ __ __ __

d. A platform or a small room used to raise and lower people or goods from one level or floor to another in a building

__ __ E __ __ __ __ __

e. A public procession of people, marching bands, or vehicles in front of spectators as part of a celebration or ceremony

__ __ __ __ D __

Question 25. How many even two-digit numbers are there whose two digits are different from each other?

Maximum points = 7 points (solution = 5 points; answer = 2 points)

Answer:

Question 26. How many balls in total are in this tetrahedron made of balls? There are also balls inside the tetrahedron.

Maximum points = 4 points (solution = 2 points; answer = 2 points)

Answer and solution:

Question 27. The time difference between Baku and Paris is 2 hours. A flight from Baku to Paris takes 6 hours and 20 minutes. If the plane departs Baku at 10:50, at what local time will it arrive in Paris?

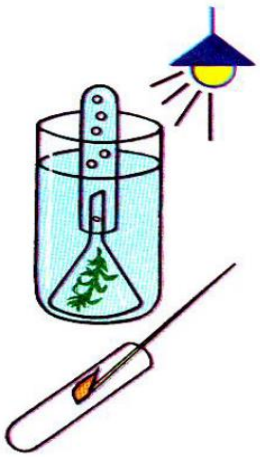
Maximum points = 5 points (solution = 3 points; answer = 2 points)
Answer and solution:

Question 28. To call the police, you need to dial the short number _____; to call emergency medical services, the short number _____; to call the fire service, the short number _____.

Maximum points = 3 points (each blank = 1 point)

Question 29. Which biological process is illustrated in this experimental diagram?

Maximum points = 4 points



Answer:

Question 30. Next to each of the following athletes' names, write the sport in which they have achieved success.

Maximum points = 10 points (each item = 1 point)

Nicat Abbasov _____
Rafael Nadal _____
Manuel Neuer _____
Rafael Aghayev _____
Sergio Pérez _____
Natalia Mammadova _____
Rafiqa Shabanova _____
Muhammad Ali _____
Usain Bolt _____
LeBron James _____

Question 31. In the number 123456, cross out two digits in such a way that the remaining four-digit number is divisible by 9 with no remainder. Write down the resulting number.

Maximum points = 4 points (solution = 3 points; answer = 1 point)
Answer and solution:

Question 32. Ali looked at the screen of his digital wristwatch. The screen showed 10:07:17. After at least how many seconds will all the digits on the screen be different from one another?

Maximum points = 5 points (solution = 4 points; answer = 1 point)
Answer and solution:

Question 33. How many three-digit numbers are there whose digits sum to 5?

Maximum points = 5 points (solution = 4 points; answer = 1 point)
Answer and solution:

Question 34. On the left is the statement of a logic problem; on the right is its solution. What are the conditions of the logic problem?

Maximum points = 6 points

	8				5	1	7	9
			2		6		8	4
9		3				6		
2	7			8		5		3
4				5		8	1	2
		8		4	2			7
8					3			1
3	5	4		1			9	
	9	6		2	4	7		

6	8	2	4	3	5	1	7	9
7	1	5	2	9	6	3	8	4
9	4	3	8	7	1	6	2	5
2	7	1	6	8	9	5	4	3
4	6	9	3	5	7	8	1	2
5	3	8	1	4	2	9	6	7
8	2	7	9	6	3	4	5	1
3	5	4	7	1	8	2	9	6
1	9	6	5	2	4	7	3	8

Answer:

Question 35. 10 minutes ago the distance between two cars was 10 km; now it is 6 km. What will the distance between them be 10 minutes from now? Both cars are traveling on the same road in the same direction at constant speeds without changing direction.

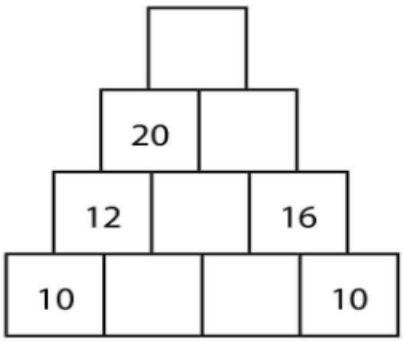
Maximum points = 9 points (solution = 5 points; answer = 4 points)
Answer and solution:

Question 36. Below you are given the titles of famous literary works in different languages. Write the titles of these works in Azerbaijani.

Maximum points = 3 points (each item = 1 point)
In German: *Aschenputtel*
In Azerbaijani: _____
In Danish: *Den lille Rødhætte*
In Azerbaijani: _____
In Italian: *Il principe e il povero*
In Azerbaijani: _____

Question 37. In this pyramid, the cell above two adjacent numbers in the same row contains their sum. Some numbers have been erased. What number was in the very top cell?

Maximum points = 5 points (answer = 5 points)



Answer:

Question 38. Using each of the natural numbers from 1 to 9 at most once, perform any mathematical operations (addition, subtraction, multiplication, division, exponentiation, etc.) so that the result of the expression equals 352.

Maximum points = 10 points
Your score will be calculated according to the table below:

Numbers used	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Points earned	*10*	*8*	*6*	*4*	*3*	*2*	*1*

Answer:

Question 39. There are 300 apartments in a building. If an apartment's number is divisible by 10 with no remainder, then a dog is kept in that apartment (no dogs are kept in any other apartments). If the sum of the digits of an apartment's number is divisible by 10 with no remainder, then a cat is kept in that apartment (no cats are kept in any other apartments). In how many apartments are both a dog and a cat kept?

Maximum points = 7 points (solution = 5 points; answer = 2 points)
Answer and solution:

Question 40. Fill in the missing words in the text correctly. Next to each missing word, the letters that make up that word are listed.

Maximum points = 6 points (each item = 1 point)

Friends have asked me, "Leyla, where have you been?" since I returned from my seven-day _____ (a) in Ecuador. I love answering them, "Oh! I went to _____ (b) America!" I was there with my _____ (c). There were nine of us in the group but we'd never met each other before. On the first day, we travelled with a guide for five hours up the river to our _____ (d) camp. It was so _____ (e) to be in the Amazon _____ (f)!

a. **ADHILOY** _____
b. **HOSTU** _____
c. **ANSTU** _____
d. **EGJLNU** _____
e. **CEGIINTX** _____
f. **AEFINORRST** _____

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