

Nr.
-București-

Transferul în colegiile naționale militare. în anul școlar 2021-2022

TEST GRILĂ DE VERIFICARE A CUNOȘTINȚELOR LA DISCIPLINA

MATEMATICĂ-clasa a X-a

VARIANȚA 2

02.09.2021

1. Dacă $x \in \mathbb{N}$ și $1 + 4 + 7 + \dots + x = 117$, atunci soluția ecuației este:			
A. 25	B. 19	C. 100	D. 9
2. Dacă $\alpha \in \left(\frac{3\pi}{2}, 2\pi\right)$ și $\cos \alpha = \frac{5}{13}$, atunci numărul $\operatorname{ctg} \alpha$ este egal cu:			
A. $-\frac{5}{12}$	B. $\frac{5}{12}$	C. $\pm \frac{5}{12}$	D. $-\frac{12}{5}$
3. Numerele reale x_1 și x_2 sunt soluții ale ecuației: $x^2 + 5x + 3 = 0$. Rezultatul calculului $\frac{1}{x_1^2} + \frac{1}{x_2^2}$ este:			
A. $\frac{1}{9}$	B. $\frac{5}{9}$	C. 4	D. $\frac{19}{9}$
4. Suma soluțiilor ecuației $ x - 1 + x - 2 = 3$ este egală cu:			
A. -3	B. 3	C. 6	D. -6
5. Soluția în \mathbb{R} a inecuației $\frac{x^2+x-3}{x+1} \leq 1$ este:			
A. $(-\infty; -2]$	B. $(-2; -1) \cup (2; +\infty)$	C. $(-1; 2]$	D. $(-\infty; -2] \cup (-1; 2]$
6. Dacă lungimile laturilor unui triunghi sunt egale cu 5, 12 și 13, atunci raza cercului înscris triunghiului este egală cu:			
A. 3	B. 6	C. 2	D. 6,5
7. Se consideră familia de parabole asociate funcțiilor $f_m: \mathbb{R} \rightarrow \mathbb{R}$, $f_m(x) = mx^2 + mx - 1$. Mulțimea valorilor parametrului real m , astfel încât parabolele să fie tangente axei Ox este:			
A. $[-4; 0]$	B. $[-4; 0]$	C. $\{-4\}$	D. $\{1; 2\}$
8. Imaginea funcției $f: [-2; 4] \rightarrow \mathbb{R}$, $f(x) = -x^2 + 2x$, este egală cu:			
A. $[-8; 0]$	B. $[-8; 1]$	C. $[0; 1]$	D. $[-8; 2]$
9. Se consideră hexagonul regulat $ABCDEF$ de centru O . Atunci, $2(\overline{BD} + \overline{BF})$ se scrie în funcție de \overline{BE} , astfel:			
A. $3\overline{BE}$	B. $2\overline{BE}$	C. \overline{BE}	D. $6\overline{BE}$



TEST DE VERIFICARE A CUNOȘTINȚELOR
-DISCIPLINA Limba engleza –
Clasa a X-a
Varianta 2

READING COMPREHENSION

Read the following text and choose the correct answer A, B, C or D:

James

My name is James. I'm fourteen and I moved to this town with my family three months ago. My parents lived here when they were young, but my brother and I didn't know anyone here except a few aunts and uncles we had met when we had spent a couple of weeks with my grandparents during school holidays. When I started school, one of my cousins, Sophie, who was in my class, was very friendly for the first week and I was happy to have a friend in a strange place. Then for no reason, she stopped talking to me and I felt very hurt and lonely for several weeks.

In the end, I made some more friends and since I got to know them, I've been fine. Now Sophie is having a disco party for her birthday next week and she has invited me. I don't want to go. My brother says he heard someone say she only asked me because her parents said she had to. But my mom and dad say it would be rude not to accept. Some of my new friends are invited, too. How can I show Sophie that she can't behave so badly towards me without causing a family quarrel?

1. What is the writer trying to do in the text?
A. explain a problem
B. describe a family
C. offer advice
D. refuse an invitation
2. Who did James know in the town a few months ago?
A. no one
B. only his grandparents
C. a few relatives
D. Sophie's friends
3. At the beginning of the term, Sophie's behaviour made the writer feel:
A. embarrassed
B. unhappy
C. surprised
D. grateful
4. The writer wants Sophie to realise
A. that he still hasn't forgiven her
B. that her friends think she behaved rudely
C. that his parents dislike her
D. that she has fewer friends than he has

LANGUAGE IN USE

Choose the right answer A, B, C or D:

5. You look tired. What ...?
A. did you do
B. were you doing

- C. have you been doing
D. you have done

6. My brother finished his dinner ... than my sister.

- A. quickly
- B. much quicker
- C. more quickly
- D. the quickest

7. I really think there is too ... furniture in your office?

- A. much
- B. more
- C. many
- D. most

8. Tourist to policeman: "How far is it to the station?"

The tourist ... to the station.

- A. inquired how far it was
- B. asked me that was it far
- C. wanted to know if it was
- D. said how far it was

9. They would offer us a 10% discount if we ... in advance.

- A. book
- B. would book
- C. booked
- D. will book

10. He had to pay the library for the ... book.

- A. lose
- B. lost
- C. loss
- D. loser

11. The mystery is revealed in the final ... of "Caribbean Mystery".

- A. report
- B. chapter
- C. conclusion
- D. documentary

12. Can you tell the difference ... butter and margarine?

- A. between
- B. on
- C. out of
- D. of

13. Why don't you mind your own ...?

- A. busyness
- B. business
- C. bussines
- D. businesses

14. "We had a new teacher today called Mary." "What did she ...?"

- A. liked
- B. look as
- C. like
- D. look like

15. Which is the correct sentence?

- A. Why bought your sister a new skirt for her birthday?
- B. Why not you buy your sister a new skirt for her birthday?
- C. Why don't you buy your sister a skirt new for her birthday?
- D. Why don't you buy your sister a new skirt for her birthday?

16. By staying up late you get the impression that you have more time for work. you wake up more tired.

- A. So
- B. In fact
- C. Secondly
- D. Finally

17. Which is the correct narration?

- A. Then, the man advised us to not cross the border.
- B. Then, the man advised us the border to cross not.
- C. Then, the man advised us not to cross the border.
- D. Then, advised us to cross not the border.

18. Which of the following can be used to end an informal letter?

- A. Yours faithfully.
- B. Hope to hear from you soon.
- C. Looking forward to receiving news about your brother's wedding.
- D. I would like to say how sorry I am about the trouble I have caused.

