



11. Numărul complex  $z = (1 - 2i)^2 + (1 + 2i)^2$  este egal cu:

- a)  $8i$                       b)  $-6 + 8i$                       c)  $-6$                       d)  $10$

12. Se consideră mulțimea  $A = \{0, 1, 2, 3, 4\}$ . Numărul submulțimilor cu 2 elemente ale mulțimii  $A$  este egal cu:

- a)  $32$                       b)  $5$                       c)  $20$                       d)  $10$

13. În reperul cartezian  $xOy$  se consideră punctele  $A(-4, 1)$  și  $B(2, 3)$ . Dacă  $M$  este mijlocul segmentului  $AB$ , atunci distanța de la punctul  $O$  la punctul  $M$  este egală cu:

- a)  $5$                       b)  $\sqrt{5}$                       c)  $2$                       d)  $\sqrt{3}$

14. În reperul cartezian  $xOy$  se consideră punctele  $A(1, 2)$ ,  $B(-1, 0)$  și  $C(0, a)$ , unde  $a$  este număr real. Dacă punctul  $C$  se găsește pe dreapta  $AB$ , atunci valoarea lui  $a$  este:

- a)  $\frac{3}{4}$                       b)  $-1$                       c)  $1$                       d)  $\frac{4}{5}$

15. Se dau matricele  $A = \begin{pmatrix} 1 & 2 \\ 0 & -1 \\ 1 & 0 \end{pmatrix}$  și  $B = \begin{pmatrix} 3 & -2 \\ 4 & 1 \\ 1 & 2 \end{pmatrix}$ . Rezultatul calculului  $3A - 2B + \frac{1}{2}(A + B)$

este:

- a)  $\begin{pmatrix} -1 & 10 \\ -6 & -5 \\ 2 & -3 \end{pmatrix}$                       b)  $\begin{pmatrix} -1 & 10 \\ 6 & 5 \\ 2 & 3 \end{pmatrix}$                       c)  $\begin{pmatrix} 1 & 10 \\ -6 & 5 \\ 2 & -3 \end{pmatrix}$                       d)  $\begin{pmatrix} 1 & -10 \\ -6 & -5 \\ -2 & 3 \end{pmatrix}$

16. Dacă  $a, b \in \mathbf{R}$  și  $a + b = -1$ , atunci valoarea determinantului  $\begin{vmatrix} a & b & 1 \\ b & 1 & a \\ 1 & a & b \end{vmatrix}$  este:

- a)  $-1$                       b)  $0$                       c)  $1$                       d)  $2$

17. Soluția sistemului  $\begin{cases} x + y\sqrt{3} = 4 \\ 2x - y\sqrt{3} = -1 \end{cases}$  este:

- a)  $(-1, -\sqrt{3})$                       b)  $(-1, \sqrt{3})$                       c)  $(1, -\sqrt{3})$                       d)  $(1, \sqrt{3})$

18. Se consideră matricea  $A = \begin{pmatrix} m & 2 \\ 8 & m \end{pmatrix}$ , unde  $m \in \mathbf{R}$ . Mulțimea valorilor lui  $m$  pentru care matricea  $A$  nu este inversabilă este:

- a)  $\emptyset$                       b)  $\{4\}$                       c)  $\{-4\}$                       d)  $\{4, -4\}$

## DISCIPLINA LIMBA ENGLEZĂ

### PARTEA I: GRAMATICA

1. He had been a \_\_\_\_\_ for a long time when I met him:
  - a. widower
  - b. widow
  - c. widowess
  - d. widows
  
2. The Ferrari is \_\_\_\_\_ than the BMW.
  - a. more fast
  - b. faster
  - c. fast
  - d. fastest
  
3. Military professionals must wear \_\_\_\_\_ uniform.
  - a. an
  - b. some
  - c. few
  - d. a
  
4. The twelfth man in the row is Peter. He is the \_\_\_\_\_.
  - a. 12<sup>th</sup>
  - b. 12<sup>rd</sup>
  - c. 12<sup>st</sup>
  - d. 12<sup>nd</sup>
  
5. Water \_\_\_\_\_ at 100 °C.
  - a. boil
  - b. boils
  - c. is boiling
  - d. boiling
  
6. I was having a bath when the phone \_\_\_\_\_.
  - a. ring
  - b. ringing
  - c. is ringing
  - d. rang
  
7. After graduating I \_\_\_\_\_ work as a doctor.
  - a. was going to
  - b. goes
  - c. am going to
  - d. gone
  
8. Nobody can solve a problem \_\_\_\_\_ he does.
  - a. as quickly as
  - b. as quicklier as
  - c. as quick as
  - d. as quickliest as

9. My colleague \_\_\_\_\_ I are like sisters.
- after
  - but
  - and
  - end
10. If I \_\_\_\_\_ you, I \_\_\_\_\_ go to school.
- was / would
  - were / would
  - am / will
  - is / would
11. If it \_\_\_\_\_, I \_\_\_\_\_ my umbrella.
- rain / am taking
  - rained / will take
  - rain / will take
  - rains / will take
12. He did \_\_\_\_\_ at the test.
- good
  - not
  - gooder
  - well
13. Let's go \_\_\_\_\_ a walk in the park.
- for
  - on
  - four
  - to
14. He can \_\_\_\_\_ better than his brother.
- to swim
  - swim
  - swimming
  - was swimming
15. One \_\_\_\_\_ of her fortune will go to charity
- third
  - three
  - threes
  - thirds

## PARTEA a II - a: VOCABULAR

16. Diana is a pretty \_\_\_\_\_ lady. She rarely comes late to work.
- correct
  - beautiful
  - punctual
  - unpunctual
17. This T – shirt finally \_\_\_\_\_ John.
- matches
  - sizes
  - fixes
  - fits

18. I have \_\_\_\_\_ eating habits. I usually eat fruits and vegetables and rarely meat.
- crowded
  - healthy
  - busy
  - unhealthy
19. Small kids are very \_\_\_\_\_. They like toys.
- ugly
  - beautiful
  - playful
  - interesting
20. Some grandparents find difficult to \_\_\_\_\_ children.
- grow
  - develop
  - play
  - raise
21. The farmer has a lot of cows and sheep at his farm. They are \_\_\_\_\_ animals.
- wild
  - domestic
  - dangerous
  - pink
22. I have a terrible headache. I'll go and buy some aspirin from the \_\_\_\_\_.
- hospital
  - infirmary
  - pharmacy
  - corner shop
23. Please \_\_\_\_\_ me some money.
- borrow
  - lend
  - pay
  - a lot
24. My father's brother is my \_\_\_\_\_.
- grandfather
  - brother
  - big brother
  - uncle
25. Little Tom likes playing computer \_\_\_\_\_.
- work
  - plays
  - games
  - lessons
26. Next week, I'll go to the seaside. I'll stay in a 4 star \_\_\_\_\_.
- hotel
  - restaurant
  - museum
  - school

27. Usually I cook my own \_\_\_\_\_ when I'm at home.
- a. drink
  - b. lunch
  - c. water
  - d. table
28. Which of the ones mentioned below is a colour?
- a. sink
  - b. drink
  - c. pink
  - d. link
29. A lemonade is made of \_\_\_\_\_
- a. oranges and honey
  - b. lemons and money
  - c. apples and bananas
  - d. lemons and honey
30. "What a pity!" "I bought a nice blouse and it has a small \_\_\_\_\_ in it"
- a. whole
  - b. owl
  - c. hole
  - d. bowl

**GRILA DE CORECTARE LA DISCIPLINELE MATEMATICĂ ȘI LIMBA ENGLEZĂ  
- PROFILUL SUBOFIȚERI-**

**VARIANTA NR. 3**

**MATEMATICĂ**

**LIMBA ENGLEZĂ**

Nr.item	Răspuns	Nr.item	Răspuns
1.	a	10.	a
2.	a	11.	c
3.	b	12.	d
4.	c	13.	b
5.	c	14.	c
6.	d	15.	a
7.	d	16.	b
8.	b	17.	d
9.	d	18.	d

Nr.item	Răspuns	Nr.item	Răspuns
1.	a	16.	c
2.	b	17.	d
3.	d	18.	b
4.	a	19.	c
5.	b	20.	d
6.	d	21.	b
7.	c	22.	c
8.	a	23.	b
9.	c	24.	d
10.	b	25.	c
11.	d	26.	a
12.	d	27.	b
13.	a	28.	c
14.	b	29.	d
15.	a	30.	c