

تعداد سوالات: تستی: ۲۰ تشریحی: ۱
زمان آزمون: تستی: ۵۰ تشریحی: ۶۰ دقیقه
آزمون نمره منفی دارد ○ ندارد ⊗

نام درس: زبان تخصصی
رشته تحصیلی/گد درس: آموزش ریاضی (۱۱۱۲۹۰) - ریاضی (۱۱۱۱۰۵۸)

منبع: ..

مجاز است.

استفاده از: ..

گد سری سوال: یک (۱)

پیامبر اعظم (ص): روزه سیر آتش جهنم است.

In the following questions choose the best word which is more suitable for the blank space in the relevant question:

- A triangle is a/an polygon which is sometimes called the trigon.
a. 3 – angled b. 3 – sided c. 3 – side d. 3 – angle
- The portion of the plane enclosed by the circle is called the circle
a. exterior b. center c. circumference d. interior
- In chapter 2 the set V was R^p or R^p , and F was the set of reals.
a. only b. either c. that of d. surely
- G.H. Hardy " a late mathematician" wrote that: The mathematician's patterns like the painter's must be
a. concise b. beautiful c. pure d. correct
- We speak of the vector spaces..... the field F.
a. on b. over c. in d. about
- A knowledge of statistics is required by every type of scientist for the of data
a. analyse b. calculation c. analysing d. handling
- Mathematics is also the language of science being used in all major disciplines
a. extensively b. extensive c. correctly d. corrected ness
- the real and imaginary parts of these two expressions we obtain the traditional formulation of the Cauchy – Riemann Equations:
a. To equal b. considering c. equating d. adding
- One central tool in complex analysis is the integral.
a. linear b. line c. plane d. planar

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10. For every pair $m, n \in N$ exactly one of the following holds:

1. $m = n$ 2. $m < n$ 3. $n < m$

This is called the

- a. binary b. law of associative
c. law of binary d. law of trichotomy

11. One of the most characteristic property of the set of natural number is called.....

- a. well – defined property b. well – known property
c. well – ordered property d. well – ordering property

12. In order to eliminate the deficiency of the system of natural numbers we develop.....

- a. the system of integers b. the system of reals
c. the system of rationales d. the system of complex numbers

13. The Fibonacci sequence is related to the of rabbits

- a. study b. production c. comparison d. deduction

14. π is considered to be the ratio of any circle to its

- a. radius b. diameter c. circumference d. area

15. It is believed that was first studied by human race.

- a. geometry b. topology c. analysis d. arithmetic

16. An axiom is a statement that we accept it without a/an

- a. prove b. formulae c. argument d. proof

17. Spirals..... in nature in many different ways.

- a. arise b. occur c. fall d. are

18. Please write down the matrix of the system of linear equations.

- a. augmented b. augment c. coefficient d. cofactor

19. The factorization in (1) is unique except for the of the factors.

- a. terms b. number c. order d. arrange

20. It is that mathematics is the father of all other sciences.

- a. supposed b. claimed c. proved d. obtained

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گد سری سؤال: یک (۱)

(۹ نمره)

متن زیر را به فارسی روان ترجمه کنید.

This course is often the first course in abstract mathematic for students. The reader should not be overwhelmed with proofs. But should nevertheless be taught how to prove theorems. The proofs of some theorems are given, when those proofs are instructive. Some proofs are given in outline form whereas other proofs have been omitted. Students should be introduced slowly and carefully to the art of developing and writing proofs. This skill is at the heart of mathematics. The student should be trained to think mathematically. For example, the idea of if – and – only – if is extremely important in mathematics and it arises very naturally in linear algebra. We introduce this concept with an example that shows that the product AB of two symmetric A and B of the same size is symmetric if and only if $AB = BA$. The reader then meets this concept again on a number of occasions. One reason that linear algebra is an appropriate course for introducing abstract mathematical thinking is that much of the material has geometrical interpretation: the student can visualize results. Conversely, Linear algebra helps develop the geometrical instinct of the student. Geometry and algebra go hand – in – hand in this course. The process of starting with known results in two – dimensional space and generalizing to n - dimensions arises naturally. I have attempted to teach art of developing axioms. Computation while linear algebra has its abstract side. It also has its numerical side. Algorithm is a word that the student should feel comfortable with by the end of the course. The student participates in the process of determining exactly where certain algorithms gain over others. The strassen fast matrix multiplication algorithm is, for example. Discussed. The reader should know that research is going on into finding faster algorithms for handling matrices.