

Question QMC1 :

Answer:

Question QMC2 : If f is a continuously differentiable real-valued function defined on the open interval $(1, -4)$ such that $f(3) = 5$ and $f^{(n)}(x) < -1$ for all x , what is the greatest possible value of $f(0)$

Answer:

Question QMC3 :

Answer:

Question QMC4 : A real-valued function f defined on \mathbb{R} has the following property. For every positive number ϵ , there exist a positive number δ . This property is equivalent to which of the following statement about f ?

Answer:

Question QMC5 : Which of these functions is not uniformly continuous on $(0, 1)$?

Answer:

Question QMC6 : Let S_n be a sequence of real numbers on a bounded set S , where $\liminf S_n \neq \limsup S_n$. Which of the following is not necessarily true?

Answer:

Question QMC7 : Which of the following is true about a uniformly continuous function, f on $[a, b]$?

Answer:

Question QMC8 :

Answer:

Question QMC9 : Which of the following is true

Answer:

Question QMC10 : Rational numbers can be expressed as ratio of true integers with repeated or terminations decimals. On the other hand, irrational numbers refer to any real numbers that are not rational. So, is π a rational number or an irrational number

Answer:

Question QMC11 : Given a non-empty subset S of \mathbb{R} on the interval $[0, 5]$. Then, any number greater than 5 is an upper bound of S , Since it is greater than all of the numbers contained in S . Therefore, we can say that 5.01, 5.1, 6 and 7 are all upper bound of S . Among all these upper bound, the one with the smallest value is known as the _____ of S .

Answer:

Question QMC12 : The absolute value of a real non-zero number r , denoted by $|r|$ is always

Answer:

Question QMC13 :

Answer:

Question QMC14 : By Lagrange's means value theorem, $f(x)$ can also be written as:

Answer:

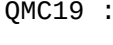
Question QMC15 : What is the first derivative of the function $f(x) = x^{n+1}$

Answer:

Question QMC16 : A monotonic sequence is said to be
Answer:

Question QMC17 : $\lim_{n \rightarrow \infty} \frac{1}{n}$ Converges to?
Answer:

Question QMC18 : $\lim_{n \rightarrow \infty} \frac{1}{n^2}$ Converges to?
Answer:

Question QMC19 :  alt=""/>
Answer:

Question QMC20 : Every nonempty set of real numbers of that has an upper bound, also has a supremum in R. This is the _____
Answer:

Question QMC21 : Two sets A and B are equal if every $x \in A$ belongs to B and every $y \in B$ belongs to A. This is called ...
Answer:

Question QMC22 : Which word is the odd one out in set notation
Answer:

Question QMC23 : Which of the following, concisely defines the union of A and B?
Answer:

Question QMC24 : A \cap B is read as...
Answer:

Question QMC25 : Which of the following is not true in set operations
Answer:

Question QMC26 : The difference of A and B may also be defined concisely by $A - B = \dots$
Answer:

Question QMC27 : Let R be the set of real numbers and let Q be the set of rational numbers. Then $R - Q$ consist of the...
Answer:

Question QMC28 : $N \cup R = \dots$
Answer:

Question QMC29 : The set - theoretic product of A and B is denoted by ...
Answer:

Question QMC30 : The notation A/B or $A \sim B$ represents ...
Answer:

Question QMC31 : Let the universal set be N

$$N = \{1, 2, 3, \dots\}$$

 Answer:

Question QMC32 : Let the universal set be the set of positive integers and let A be the set of the positive even numbers. Find A'
 Answer:

Question QMC33 : Given that $A = \{0, 1\}$ and $B = \{1, 2, 3\}$. Find $A \cap B$
 Answer:

Question QMC34 : Find $A \cap B$ if $A = \{0, 1\}$ and $B = \{1, 2, 3\}$.
 Answer:

Question QMC35 : Find $A - B$ if $A = \{0, 1\}$ and $B = \{1, 2, 3\}$
 Answer:

Question QMC36 : Find $A \cap B$ if $A = \{0, 1\}$ and $B = \{1, 2, 3\}$.
 Answer:

Question QMC37 : Concept of the divisibility only exists in set of _____
 Answer:

Question QMC38 : Find $A \cap B$ if the universal set is $\{1, 2, 3, 4\}$ and $A = \{2, 3\}$.
 Answer:

Question QMC39 : The number of elements in the Power set $P(S)$ of the set $S = \{\emptyset, \{1, 2, 3\}\}$ is _____
 Answer:

Question QMC40 : If A and B are sets and $A \cap B = A$ then $A \subseteq B$, then
 Answer:

Question QMC41 : The union of the sets $\{1, 2, 5\}$ and $\{1, 2, 6\}$ is the set _____
 Answer:

Question QMC42 : The intersection of the sets $\{1, 2, 5\}$ and $\{1, 2, 6\}$ is the set _____
 Answer:

Question QMC43 : Two sets are called disjoint if their intersection is empty set.
 Answer:

Question QMC44 : Which of the following two sets are disjoint?

Answer:

Question QMC45 : The complement of the set A is

Answer:

Question QMC46 : Individual objects in a set are called

Answer:

Question QMC47 : Set $\{x: x \text{ is an odd number between } 10 \text{ and } 18\}$

Answer:

Question QMC48 : Let $A = \{1, 2, 3, 4\}$, $B = \{2, 4, 6, 8\}$ and $C = \{3, 4, 5, 6\}$. Find $A \cup C$

Answer:

Question QMC49 : Find the equation of the circle centre $(2, -3)$ and radius 4

Answer:

Question QMC50 : Find the distance between the points Z_1 and Z_2 , given that $Z_1 = 3 + 2i$ and $Z_2 = 4 + 3i$

Answer:

Question QFB1 : If $I_n = \left(\frac{1}{n}, \frac{1}{n+1} \right)$ for $n \in \mathbb{N}$, then $\bigcap_{n=1}^{\infty} I_n = \emptyset$

Answer: Nested

Question QFB2 : A positive real number is rational if and only if its decimal representation is _____

Answer: Periodic

Question QFB3 : The unit interval $[0, 1] = \{x \in \mathbb{R} : 0 \leq x \leq 1\}$ is _____

Answer: Not countable

Question QFB4 : If C is an infinite set and B is a finite set, then $C \setminus B$ is an _____

Answer: infinite set

Question QFB5 : If $\{x_n\}$ is an unbounded increasing sequence, then $\{x_n\}$ is _____

Answer: Infinite

Question QFB6 : . Let $\{x_n\}$

(x_1, x_2, \dots, x_n) and (y_1, y_2, \dots, y_n) be two sequences of positive real numbers and suppose that for $L < \epsilon < R$, $L < y_i < R$ we have $|x_i - y_i| < \epsilon$ for all $i = 1, 2, \dots, n$. Then $|x - y| < n\epsilon$ if and only if $n < \infty$.

Answer: Infinite

Question QFB8 : A function meant a definite formula such as $f(x) = x^2 + x^3 + x^5$ which associates to each real number x another number $f(x)$ then $f(x) = x^2 + x^3 + x^5$ is ____

Answer: 9

Question QFB10 : The limit of the sequence $\frac{n^2 + 1}{n^2 + 2n + 1}$ is _____

Answer: 1

Answer: 2

Question QFB12 : The Bolzano-Weierstrass theorem says that a bounded sequence of real numbers has a _____

Answer: divergent subsequence

Question QFB13 : . A monotone sequence of real number is properly divergent if and only if it is an _____

Answer: Unbounded

Question QFB14 : Consider the series
$$\sum_{n=1}^{\infty} \left(\frac{1}{n} + \frac{1}{n} \right)$$
 this series converges to _____

Answer: 0

Question QFB15 : The limit
$$\lim_{n \rightarrow \infty} x_n$$
 is _____

Answer: Infinite

Question QFB16 : The limit
$$\lim_{n \rightarrow 0} \frac{1}{n}$$
 is _____

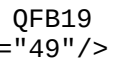
Answer: 1

Question QFB17 : The limit
$$\lim_{n \rightarrow \infty} \frac{1}{n^2}$$
 is _____

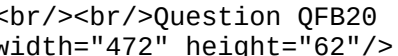
Answer: -8

Question QFB18 : Let f be the rational function defined by
$$f(x) = \frac{x^2 + 7x + 10}{x^2 + 9x + 8}$$
 ,
$$\lim_{x \rightarrow -1} f(x)$$
 is _____

Answer: 2

Question QFB19 :  alt=""
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Answer: 7

Question QFB20 :  width="472" height="62"/>
Answer: 3

Question QFB21 : The $\lim_{w \rightarrow -\infty} w^3$ is _____
Answer: 2

Question QFB22 : " + " is _____ operation on \mathbb{R}
Answer: binary operation

Question QFB23 : If a real number is not rational then it is an _____
Answer: Integer

Question QFB24 : If a real number is not rational then it is an _____ number
Answer: Irrational

Question QFB25 : A number which is neither positive nor negative is
Answer: 0

Question QFB26 : The supremum is also called the _____ upper bound
Answer: Least

Question QFB27 : The harmonic series _____
Answer: Diverges

Question QFB28 : A monotone sequence of real numbers is properly divergent if and only if it is _____
Answer: Unbounded

Question QFB29 : π is an example of _____ numbers
Answer: Irrational

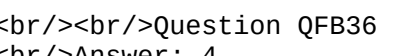
Question QFB30 : Concept of the divisibility only exists in set of _____
Answer: Integers

Question QFB32 : A convergent sequence has only _____ limit(s)
Answer: 1

Question QFB33 : Every convergent sequence has _____ one limit
Answer: 7

Question QFB34 : Give the next 3 terms of the sequence 0,1,1,2,3,5,8,
Answer: 13, 21, 34

Question QFB35 : Two Sets A and B are said to be _____ if and only if they have the same elements but possibly with different listings.
Answer: Equal

Question QFB36 :  alt=""/>
Answer: 4

Question QFB37 : List the first 3 terms of the inductively defined sequence $x_1=1$, $x_{n+1}=3x_n+1$,

Answer: 1,4,13

Question QFB38 : A set is said to be _____ if the process of counting the element in the set terminates.

Answer: Finite

Question QFB39 : A set is said to be _____ if its either empty or it has n elements for some

Answer: Finite

Question QFB40 : The property of a natural numbers which states that every nonempty subset of a natural number has a least element is termed well _____ principle

Answer: Ordering

Question QFB41 : Abounded sequence of real numbers has a _____ subsequence

Answer: Convergent

Question QFB42 : A function $f:A \rightarrow R$ is said to be _____ on

A if there exists a constant $M > 0$ such that $f(x) \leq M$ for all x in A

Answer: Bounded

Question QFB43 : The theorem that a sequence in R can have at most one limit is the _____.

Answer: Uniqueness

Question QFB44 : A sequence that has no limit is said to be _____

Answer: Divergent

Question QFB45 : For x and y an element of a natural number N, $(-x)(-y)$ equal_____

Answer: Xy

Question QFB46 : A set N is called a subset of a set M if every _____ of N is a member of M.

Answer: Element

Question QFB47 : The set B of second elements of a function f is called the _____ of the function.

Answer: Range

Question QFB48 : The set A of first elements of a function f is called the _____ of the function.

Answer: Domain

Question QFB49 : Let A and B be two non- empty sets then $A \cap B = \emptyset$ shows that A and B are _____ sets

Answer: Disjoint

Question QFB50 : A set is said to be _____ if it contains no element.

Answer: Null

Question QFB31 : Find the lim of $3x^6+5x-8$ as x tends to zero

Answer: 8