MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:03:49 AM, 11 December 2021 ) Total Marks: 1

Commutative laws are AUB=B⋃A and A⋂B=B⋃A.

Select the correct option

Reload Math Equations

- Given statement is false.
- Given statement is true.

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:03:49 AM, 11 December 2021 ) Total Marks: 1

Commutative laws are AUB=B∩A and A∩B=BUA.

Select the correct option

Reload Math Equations

- Given statement is false.
- Given statement is true.

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 6 of 10 ( Start time: 11:04:03 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $0 \leq x+2 < 3$ is _____.

Select the correct option

Reload Math Equations

- none
- $[-2,1)$
- $(-2,1)$
- $[-2,1]$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:04:20 AM, 11 December 2021 ) Total Marks: 1

If A = {1,2,3} and B = {3,4,5} then A ∩ B is _____.

Select the correct option

Reload Math Equations

- none of these
- {3}
- {3,4,5}
- {1,2,3}

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 8 of 10 ( Start time: 11:04:25 AM, 11 December 2021 ) Total Marks: 1

The distance between 10 and 14 on the real line is _____.

Select the correct option

Reload Math Equations

- 3
- 4
- 0
- -4

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:03 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:04:38 AM, 11 December 2021 ) Total Marks: 1

gcd(31, 15) = _____

Select the correct option

Reload Math Equations

- (●) 1
- ( ) 31
- ( ) 15
- ( ) none

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 1 of 10 ( Start time: 11:06:18 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $0 \leq 2x \leq 3$ is _____.

Select the correct option

Reload Math Equations

- [0,1/3]
- (0, 1/3]
- none
- (0,1/3)

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 5 of 10 ( Start time: 11:07:12 AM, 11 December 2021 ) Total Marks: 1

Identity laws are _____.

Select the correct option

Reload Math Equations

- AU∅=A, A∩U=A
- both AU∅=A, A∩U=A and AUU=U, A∩∅=∅
- AUU=U, A∩∅=∅
- none of these

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 6 of 10 ( Start time: 11:07:39 AM, 11 December 2021 ) Total Marks: 1

If $a$ and $b$ are positive, _____.

Select the correct option

Reload Math Equations

- then $a+b$ is positive and $ab$ is negative.
- then $a+b$ is negative and $ab$ is negative.
- then $a+b$ is positive and $ab$ is positive.
- then $a+b$ is negative and $ab$ is positive.

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:07:51 AM, 11 December 2021 ) Total Marks: 1

Real numbers cannot be represented as a point on a straight line.

Select the correct option

Reload Math Equations

- True
- False

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:08:23 AM, 11 December 2021 ) Total Marks: 1

A set that contains the elements present in the universal set but not in set A is called the complement of set A .

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:06 AM, 11 December 2021

Question # 10 of 10 ( Start time: 11:08:54 AM, 11 December 2021 ) Total Marks: 1

If two sets A and B are given, then the set consisting of all the elements of A and B is called Intersection of A and B.

Select the correct option

Reload Math Equations

- True
- False

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:10:23 AM, 11 December 2021 ) Total Marks: 1

Those real numbers which cannot be represented as the ratio of integers, are called _____.

Select the correct option

Reload Math Equations

- (●) irrational numbers
- ( ) rational numbers

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 3 of 10 ( Start time: 11:10:33 AM, 11 December 2021 ) Total Marks: 1

Let $a$ and $b$ be real numbers. Then $|a + b| \geq ||a| - |b||$.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:10:38 AM, 11 December 2021 ) Total Marks: 1

Let $a$ and $b$ be real numbers. Then $|a-b| \leq$ _____.

Select the correct option

Reload Math Equations

- $|a|-|b|$
- $|a||b|$
- none
- $|a|+|b|$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 5 of 10 ( Start time: 11:12:24 AM, 11 December 2021 ) Total Marks: 1

Cardinality of set {{a,b}} is _____.

Select the correct option

Reload Math Equations

- 1
- 2
- none of these
- 0

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:13:44 AM, 11 December 2021 ) Total Marks: 1

If A = {1,2,3} and B = {3,4,5} then A ∪ B is _____.

Select the correct option

Reload Math Equations

- {1,2,3,4}
- none of these
- {3,4,5}
- {1,2,3}

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 8 of 10 ( Start time: 11:13:57 AM, 11 December 2021 ) Total Marks: 1

Idempotent laws are $A \cup A = A$ and $A \cap A = A$.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:14:15 AM, 11 December 2021 ) Total Marks: 1

If p is a prime number and p does not divide a, then gcd(p, a) = _____.

Select the correct option

Reload Math Equations

- 1
- none
- a
- p

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:10 AM, 11 December 2021

Question # 10 of 10 ( Start time: 11:14:33 AM, 11 December 2021 ) Total Marks: 1

Suppose A and B are finite sets. Then $n(A \setminus B)=n(A) - n(A \cap B)$.

Select the correct option

Reload Math Equations

- ( ) Given statement is false.
- (•) Given statement is true.

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:16:04 AM, 11 December 2021 ) Total Marks: 1

The set R of real numbers is complete.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 3 of 10 ( Start time: 11:16:13 AM, 11 December 2021 ) Total Marks: 1

Real numbers cannot be represented as a point on a straight line.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:16:18 AM, 11 December 2021 ) Total Marks: 1

If p is a prime number and p does not divide a, then gcd(p, a) = _____.

Select the correct option

Reload Math Equations

- a
- none
- 1
- p

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 5 of 10 ( Start time: 11:16:24 AM, 11 December 2021 ) Total Marks: 1

If A = {1,2,3} and B = {3,4,5} then A ∩ B is _____.

Select the correct option

Reload Math Equations

- (•) {3}
- ( ) {1,2,3}
- ( ) none of these
- ( ) {3,4,5}

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 6 of 10 ( Start time: 11:16:30 AM, 11 December 2021 ) Total Marks: 1

Two distinct points are on one and only one line.

Select the correct option

Reload Math Equations

- True
- False

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:16:56 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $0 \leq x+2 < 3$ is _____.

Select the correct option

Reload Math Equations

- none
- [-2,1)
- [-2,1]
- (-2,1)

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 8 of 10 ( Start time: 11:17:06 AM, 11 December 2021 ) Total Marks: 1

Let $A$ be a set of real numbers. If for every $x \in A$, $|x| \leq M$, where M is a real number, then _____.

Select the correct option

Reload Math Equations

- $A$ is unbounded
- $A$ is bounded

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:17:18 AM, 11 December 2021 ) Total Marks: 1

The set Q of rational numbers is complete.

Select the correct option

Reload Math Equations

- True
- False

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 10 of 10 ( Start time: 11:17:29 AM, 11 December 2021 ) Total Marks: 1

Two distinct lines cannot contain more than one point in common.

Select the correct option

Reload Math Equations

- (●) Given statement is false.
- ( ) Given statement is true.

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:18:45 AM, 11 December 2021 ) Total Marks: 1

Cardinality of set {{a,b}} is _____.

Select the correct option

Reload Math Equations

- (•) 1
- ( ) 0
- ( ) 2
- ( ) none of these

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:18:45 AM, 11 December 2021 ) Total Marks: 1

Cardinality of set {{a,b}} is _____

Select the correct option

Reload Math Equations

- 1
- 0
- 2
- none of these

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:18:56 AM, 11 December 2021 ) Total Marks: 1

The distance between -2 and 14 on the real line is _____.

Select the correct option

Reload Math Equations

- -16
- 14
- 16
- 15

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 5 of 10 ( Start time: 11:19:01 AM, 11 December 2021 ) Total Marks: 1

If two sets A and B are given, then the set consisting of all the elements of A and B is called Intersection of A and B.

Select the correct option

Reload Math Equations

- (●) False
- ( ) True

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 8 of 10 ( Start time: 11:19:40 AM, 11 December 2021 ) Total Marks: 1

If A = {1,2,3} and B = {3,4,5} then A ∩ B is _____.

Select the correct option

Reload Math Equations

- (•) {3}
- ( ) none of these
- ( ) {3,4,5}
- ( ) {1,2,3}

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 10 of 10 ( Start time: 11:19:55 AM, 11 December 2021 ) Total Marks: 1

Which of the following set is bounded?

Select the correct option

Reload Math Equations

- $B = \{x : x < 3\}$
- $A = \{x : x > 2\}$
- none
- $C = \{3,4,5\}$

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 10 of 10 ( Start time: 11:19:55 AM, 11 December 2021 ) Total Marks: 1

Which of the following set is bounded?

Select the correct option

Reload Math Equations

- $B = \{x : x < 3\}$
- $A = \{x : x > 2\}$
- none
- $C = \{3,4,5\}$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 1 of 10 ( Start time: 11:21:40 AM, 11 December 2021 ) Total Marks: 1

Idempotent laws are A∪A=A and A∩A=A.

Select the correct option

Reload Math Equations

- True
- False

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:21:45 AM, 11 December 2021 ) Total Marks: 1

The set Q of rational numbers is complete.

Select the correct option

Reload Math Equations

- False
- True

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 4 of 10 ( Start time: 11:21:55 AM, 11 December 2021 ) Total Marks: 1

Identity laws are _____

Select the correct option

Reload Math Equations

- $A \cup U = U$, $A \cap \emptyset = \emptyset$
- $A \cup \emptyset = A$, $A \cap U = A$
- both $A \cup \emptyset = A$, $A \cap U = A$ and $A \cup U = U$, $A \cap \emptyset = \emptyset$
- none of these

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 6 of 10 ( Start time: 11:22:04 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $|x| < -3$ is _____.

Select the correct option

Reload Math Equations

- [-3,3)
- none
- [-3,3]
- (-3,3)

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:22:08 AM, 11 December 2021 ) Total Marks: 1

Let $a$ and $b$ be real numbers. Geometrically, $a < b$ if and only if _____.

Select the correct option

Reload Math Equations

- (●) the point $a$ lies to the left of the point $b$
- ( ) the point $a$ lies to the right of the point $b$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:21:45 AM, 11 December 2021 ) Total Marks: 1

The set Q of rational numbers is complete.

Select the correct option

Reload Math Equations

- False
- True

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 3 of 10 ( Start time: 11:21:50 AM, 11 December 2021 ) Total Marks: 1

If A = {1,2,3} and B = {3,4,5} then A ∩ B is _____.

Select the correct option

Reload Math Equations

- none of these
- {1,2,3}
- {3}
- {3,4,5}

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 6 of 10 ( Start time: 11:22:04 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $|x| < -3$ is _____.

Select the correct option

Reload Math Equations

- [-3,3)
- none
- [-3,3]
- (-3,3)

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 7 of 10 ( Start time: 11:22:08 AM, 11 December 2021 ) Total Marks: 1

Let $a$ and $b$ be real numbers. Geometrically, $a < b$ if and only if _____.

Select the correct option

Reload Math Equations

- (●) the point $a$ lies to the left of the point $b$
- ( ) the point $a$ lies to the right of the point $b$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 8 of 10 ( Start time: 11:22:58 AM, 11 December 2021 ) Total Marks: 1

The interval satisfying the inequality $0 \leq x+2 < 3$ is _____.

Select the correct option

Reload Math Equations

- none
- $[-2,1]$
- $[-2,1)$
- $(-2,1)$

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:23:06 AM, 11 December 2021 ) Total Marks: 1

A group or collection of well-defined objects is called a set.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:15 AM, 11 December 2021

Question # 1 of 10 ( Start time: 11:15:59 AM, 11 December 2021 ) Total Marks: 1

Which of the following set is unbounded?

Select the correct option

Reload Math Equations

- none
- C = {1,2,3,...}
- B = {x : |x| ≤ 3}
- A = {x : |x| < 4}

Saving...

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:18 AM, 11 December 2021

Question # 9 of 10 ( Start time: 11:19:47 AM, 11 December 2021 ) Total Marks: 1

Those real numbers which cannot be represented as the ratio of integers, are called _____.

Select the correct option

Reload Math Equations

- irrational numbers
- rational numbers

Click to Save Answer & Move to Next Question

MTH104 - Sets and Logic (Quiz # 1) Quiz Start Time: 11:21 AM, 11 December 2021

Question # 2 of 10 ( Start time: 11:21:45 AM, 11 December 2021 ) Total Marks: 1

The set Q of rational numbers is complete.

Select the correct option

Reload Math Equations

- False
- True

Click to Save Answer & Move to Next Question