

MTH104 - Sets and Logic (Quiz # 3)

Question # 1 of 10 (Start time: 07:45:28 AM, 28 February 2022)

The ordinal number of $\{1,2,3,4\}$ is _____

Select the correct option

☒	4
☐	1
☐	2
☐	3

MTH104 – Sets and Logic (Quiz # 3)

Question # 2 of 10 (**Start time: 07:46:56 AM, 28 February 2022**)

Let C be the set of countries on earth, thinking of each country as a collection of cities. Then UC is the set of all cities on earth, and the function f that assigns to each country its capital city is a choice function for C .

Select the correct option

False



True



Question # 3 of 10 (**Start time: 07:47:58 AM, 28 February 2022**)

Let C be a non-empty set of non-empty sets. A function $f : C \rightarrow \bigcup C$ is called a choice function for C if $f(A) \in A$ for all $A \in C$.

Select the correct option

☐ False

☒ True

MTH104 - Sets and Logic (Quiz # 3)

Question # 4 of 10 (Start time: 07:48:32 AM, 28 February 2022)

An element 'a' in a well-ordered set A is called a limit element if

Select the correct option



it has an immediate predecessor and if it is the first element.



it does not has an immediate predecessor and if it is not the first element

B is correct



it is the first element.



it has an immediate predecessor.

MTH104 – Sets and Logic (Quiz # 3)

Question # 5 of 10 (**Start time: 07:50:01 AM, 28 February 2022**)

Let A be a well-ordered set. Then every subset of A is well-ordered.

Select the correct option

☒	Given statement is true.
☐	Given statement is false.

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MTH104 – Sets and Logic (Quiz # 3)

Question # 6 of 10 (**Start time: 07:50:22 AM, 28 February 2022**)

The ordinal number of the set P of counting numbers is denoted ω .

Select the correct option

☐	false
☒	true

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MTH104 - Sets and Logic (Quiz # 3)

Question # 7 of 10 (**Start time: 07:52:26 AM, 28 February 2022**)

Let A be a well-ordered set. Then if B is similar to A , then B is well-ordered.

Select the correct option

☒ Given statement is true.

☐ Given statement is false.

Question # 8 of 10 (Start time: 07:52:47 AM, 28 February)

Suppose A and B are well-ordered sets, and suppose A is similar to an initial segment of B. Then A is said to be _____ than B.

Select the correct option

☒ shorter

☐ longer

Question # 9 of 10 (Start time: 07:54:09 AM, 28 February

Let C be the collection of all pairs of shoes in the world. Then the function that picks the left shoe out of each pair is a choice function for C .

Select the correct option

☒	True
☐	False

Question # 10 of 10 (Start time: 07:54:43 AM, 28 Febru

Any well-ordered set A is not linearly ordered.

Select the correct option

☐	Given statement is true.
☒	Given statement is false.

The ordinal number of empty set is _____.

Select the correct option

1



0



Let C be the collection of all pairs of shoes in the world. Then the function that picks the left shoe out of each pair is a choice function for C .

Select the correct option

False

True



The ordinal number of the set P of counting numbers is denoted by $\aleph$.

Select the correct option

true



false



Question # 2 of 10 (Start time: 03:08:23 PM, 01 March 2022)

Total Marks: 1

The ordinal number of set $\{a, \{b, c\}\}$ is _____

Select the correct option

 Reload Math Equations

1



3



0



2



Click to Show Answer & Move to Next Question

Question # 3 of 10 (Start time: 03:09:04 PM, 01 March 2022)

Total Marks: 1

Suppose A and B are well-ordered sets, and suppose A is similar to an initial segment of B . Then A is said to be _____ than B .

select the correct option

 Reload Math Equations☐ longer☒ shorter

Click to Save Answer & Move to Next Question

Question # 1 of 10 (Start time: 03:06:54 PM, 01 March 2022)

Total Marks: 1

The ordinal number of empty set is _____

Select the correct option

 Reload Math Equations

☐	0
☐	1

Click to Save Answer & Move to Next Question

Question # 7 of 10 (start time: 03:13:15 PM, 01 March 2022)

Total Marks: 1

Let $S(A)$ denote the collection of all initial segments of elements in a well-ordered set A , and let $S(A)$ be ordered by set inclusion. Then A is similar to $S(A)$ and, in particular, the function $f: A \rightarrow S(A)$ defined by $f(x) = s(x)$ is a similarity mapping between A and $S(A)$.

Select the correct option

 Reload Math Equations☐ Given statement is false.☒ Given statement is true.[Click to Save Answer & Move to Next Question!](#)

Question # 5 of 10 (Start time: 03:10:58 PM, 01 March 2022)

Total Marks: 1

An element, 'a' in a well-ordered set A is called a limit element, if _____

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| ☐ | it is the first element. |
| ☐ | it has an immediate predecessor. |
| ☒ | it does not has an immediate predecessor, and if it is not the first element. |
| ☐ | it has an immediate predecessor and if it is the first element. |



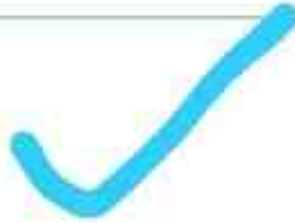
Click to Save Answer & Move to Next Question

Question # 10 of 10 (Start time: 03:18:34 PM, 01 March 2022)

Total Marks: 1

Suppose A and B are well-ordered sets, and suppose A is similar to an initial segment of B . Then B is said to be _____ than A .

Select the correct option

 Reload Math Equations☐ longer☐ shorter

Question # 8 of 10 (Start time: 02:31:57 PM, 01 March 2022)

Let C be a non-empty set of non-empty sets. A function $f: C \rightarrow \cup C$ is called a choice function for C if $f(A) \in A$ for all $A \in C$.

Select the correct option

True



False

Let A be a well-ordered set. The initial segment $s(a)$ of an element $a \in A$ consists of all elements in A which strictly precede a .

Select the correct option

☒ Given statement is true.



☐ Given statement is false.