

MTH202:Quiz No.1

Question # 6 of 10 (Start time: 10:41:49 PM, 15 June 2022)

For $(2x-3, 4y+2)=(1,10)$, what will be the value of x and y ?

$$2x - 3 = 1$$

Select the correct option

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | (2, 2) |
| <input type="radio"/> | (1, 2) |
| <input type="radio"/> | (3, 4) |
| <input type="radio"/> | None of these |

Swipe up for filters

Add a caption...



If R is transitive then the inverse relation will be transitive.

Select the correct option

false

true



Operation of subtraction is a binary operation on the set of

.....

Select the correct option

<input checked="" type="radio"/>	Integers
<input type="radio"/>	Natural numbers
<input type="radio"/>	Whole numbers
<input type="radio"/>	Positive integers

Go to First / Previous / Next / Last Question

Which relations below are not functions?

Select the correct option

<input type="radio"/>	$\{(3,90),(4,54),(6,71),(8,90)\}$
<input type="radio"/>	$\{(-1,2),(-4,51),(1,2),(8,-51)\}$
<input type="radio"/>	$\{(3,1),(4,54),(6,71),(9,91)\}$
<input checked="" type="radio"/>	$\{(13,14),(13,5),(16,7),(18,13)\}$

Click on Done & Submit & Move to Next Question



MTH202:Quiz No.1

Question # 8 of 10 (Start time: 08:07:48 PM, 15 June 2022)

If $A = \{1, 2, 3\}$ is a set and $R = \{(2, 3), (2, 2), (3, 4)\}$ is a relation on A , then R is

Select the correct option

<input type="radio"/>	Reflexive
<input type="radio"/>	Symmetric
<input type="radio"/>	Transitive
<input checked="" type="radio"/>	None of these

QED

Question # 1 of 10 (Start time: 04:52:06 PM, 15 June 2022)

"-" is a binary operation on the set of integers \mathbb{Z} .

Select the correct option

<input checked="" type="radio"/>	True
<input type="radio"/>	False

[Click to See Answer & Move to Next Q.](#)

Which of the following is not a binary operation on the set of Integers?

Select the correct option

<input type="radio"/>	Addition
<input type="radio"/>	Subtraction
<input checked="" type="radio"/>	Division
<input type="radio"/>	Multiplication

Click to Save Answer & Move to Next Question

Which relations below are functions?

$$R1 = \{(3,4), (4,5), (6,7), (8,9)\}$$

$$R2 = \{(3,4), (4,5), (6,7), (3,9)\}$$

$$R3 = \{(-3,4), (4,-5), (0,0), (8,9)\}$$

$$R4 = \{(9,11), (2,4), (5,6), (17,9), (10,1)\}$$

Select the correct option:

<input type="radio"/>	R1 and R2 are functions
<input checked="" type="radio"/>	R1 and R3 are functions
<input type="radio"/>	R2 and R4 are functions
<input type="radio"/>	R3 and R2 are functions

Go to Question | Previous Question | Next Question



WGS



Question # 6 of 10 (Start time: 08:38:24 PM, 15 June 2022)

Total Marks: 1

Let $A = \{0, 1, 2\}$ and $R = \{(0,2), (1,1), (2,0)\}$ be a relation on A . Then which of the following ordered pairs are needed to make it transitive?

Select the correct option

<input type="radio"/>	(0,0) and (0,2)
<input type="radio"/>	(0,0) and (2,2)
<input type="radio"/>	(2,0) and (2,2)
<input type="radio"/>	(2,0) and (0,2)

[Click to See Answer / Show Next Question](#)

In the representation of an irreflexive relation using a matrix, all its diagonal entries will be

Select the correct option

<input type="radio"/>	1
<input type="radio"/>	2
<input type="radio"/>	-1
<input checked="" type="radio"/>	0

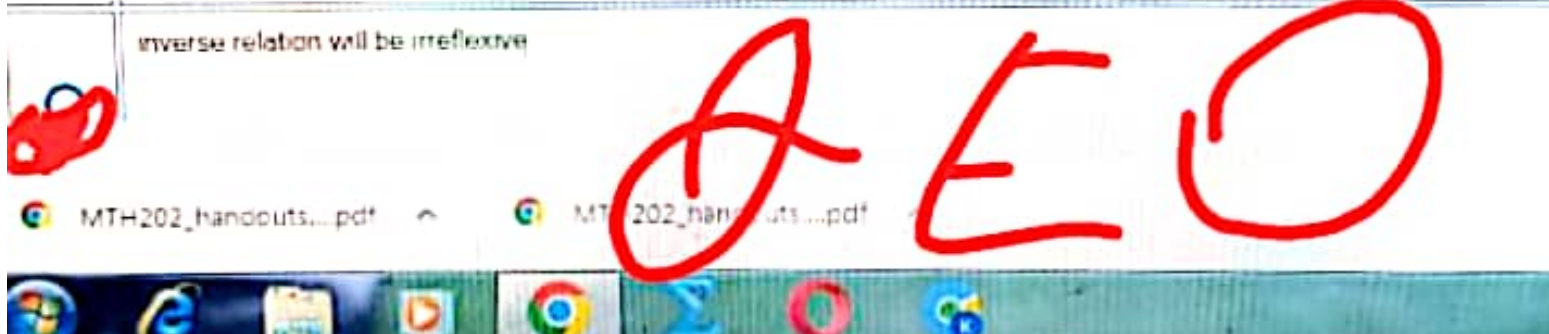
Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 10:19:59 PM, 15 June 2022)

If a relation R is reflexive, anti symmetric and transitive then which of the following is not true for the inverse relation.

Select the correct option

- inverse relation will be transitive
- inverse relation will be reflexive
- inverse relation will be anti symmetric
- inverse relation will be irreflexive



MTH202_handouts...pdf MTH202_handouts...pdf

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If $A = \{1, 2, 3\}$ is a set and $R = \{(1, 2), (2, 2), (2, 1)\}$ is a relation on A , R is

Select the correct option

<input checked="" type="radio"/>	Symmetric
<input type="radio"/>	None of these
<input type="radio"/>	Reflexive
<input type="radio"/>	Transitive

Q E O

Question # 10 of 10 (Start time: 09:23:12 PM, 15 June 2022)

Total Marks: 1

Let A be a non-empty set and $P(A)$ the power set of A . Define the "subset" relation, \subseteq , as follows: for all $X, Y \in P(A)$, $X \subseteq Y \Leftrightarrow \forall x$, iff $x \in X$ then $x \in Y$. Then \subseteq is _____.

Select the correct option

\subseteq is not a partial order relation.

\subseteq is a partial order relation.

[Click on Correct Answer / Move to Next Question](#)

Let $A = \{1, 2, 3\}$ and $B = \{2, 4\}$ then number of binary relations from A are _____ .

Select the correct option

- | | |
|-----------------------|----|
| <input type="radio"/> | 6 |
| <input type="radio"/> | 16 |
| <input type="radio"/> | 64 |
| <input type="radio"/> | 9 |

Click to Edit Answer & Move to Next

$$3 \times 2 = 6$$

$$2^6 = 64$$

If a relation $R = \{(1,1)(2,1)(1,2)(2,2)\}$ is given then which of the following is not true about this relation.

Select the correct option



R is Irreflexive.



R is Symmetric.



R is Reflexive.



R is Transitive

[Click to Go to Next Question](#)

Question # 4 of 10 (Start time: 08:15:55 PM, 15 June 2022)

Total Marks: 1

Composite Relation symbolically written as _____.

Select the correct option

- | | |
|-----------------------|--|
| <input type="radio"/> | $SoR = \{(a,c) a \in A, c \in C, \exists b \in B, (a,b) \in R \text{ and } (b,c) \in S\}$ |
| <input type="radio"/> | $SoR = \{(a,c) a \in A, c \in C, \exists b \notin B, (a,b) \in R \text{ and } (b,c) \in S\}$ |
| <input type="radio"/> | None of the above |
| <input type="radio"/> | $SoR = \{(a,c) a \in A, c \in C, \exists b \in B, (a,b) \in R \text{ and } (b,c) \notin S\}$ |

Click to Save Answer / Move to Next Question

If $x \equiv 17 \pmod{5}$ Which of the following integers are valid solution for x ?

Select the correct option

<input checked="" type="radio"/>	12
<input type="radio"/>	-44
<input type="radio"/>	4
<input type="radio"/>	8

Click to View Answer & Move to Next Question

Question # 4 of 10 (Start time: 03:51:42 PM, 14 June 2022)

Total Marks: 1

Let R be a relation on a set A . If R is symmetric then its complement is

_____.

Select the correct option

<input type="radio"/>	Antisymmetric
<input type="radio"/>	Symmetric
<input type="radio"/>	Reflexive
<input type="radio"/>	Irreflexive

[Click to Show Answer & Move to Next Question](#)

BC210412747: ANEETA

MTH202: Quiz No.1

Quiz

Question # 4 of 10 (Start time: 08:36:46 PM, 15 June 2022)

Given a Set $A = \{a, b\}$ and $B = \{1, 2, 3\}$, then number of functions from A to B is

Select the correct option

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | 9 |
| <input type="radio"/> | 6 |
| <input type="radio"/> | 5 |
| <input type="radio"/> | 8 |

Click to Save A

$$3^2 = 9$$

Select the correct option

<input type="radio"/>	Range
<input checked="" type="radio"/>	Domain
<input type="radio"/>	Relation
<input type="radio"/>	None of these.

Question # 4 of 10 (Start time: 09:07:02 PM, 15 June 2022)

Total Marks: 1

Let $A = \{4,5,6\}$ then The relation $R = \{(4,5), (5,4), (6,5), (5,6)\}$ is

_____.

Select the correct option

<input type="radio"/>	R is Transitive
<input type="radio"/>	R is Reflexive
<input type="radio"/>	R is Anti symmetric
<input checked="" type="radio"/>	R is Symmetric

QED



In the directed graph of an antisymmetric relation there ispair of arrows between two distinct elements of the set.

Select the correct option

<input type="radio"/>	two
<input type="radio"/>	infinite
<input checked="" type="radio"/>	no
<input type="radio"/>	one

Click to Save Answer / Move to Next Question

Question # 7 of 10 (Start time: 09:28:32 PM, 15 June 2022)

Let R be a relation on a set A . R is transitive if and only if for all $a, b, c \in A$ then:

Select the correct option

<input type="radio"/>	$(a, b) \in R$ then $(b, a) \in R$
<input type="radio"/>	$(a, b) \in R$ and $(b, c) \in R$ then $(a, c) \in R$ $(a, b) \in R$ then $(b, a) \in R$
<input type="radio"/>	$(a, b) \in R$ and $(b, c) \in R$ but $(a, c) \notin R$
<input checked="" type="radio"/>	$(a, b) \in R$ and $(b, c) \in R$ then $(a, c) \in R$

Question # 6 of 10 (Start time: 08:37:30 PM, 15 June 2022)

Total Marks:

Let $X = \{2,4,5\}$ and $Y = \{1,2,4\}$ and R be a relation from X to Y defined by $R = \{(2,4), (4,1), (a,2)\}$. For what value of 'a' the relation R is a function ?

Select the correct option

<input type="radio"/>	4
<input type="radio"/>	2
<input checked="" type="radio"/>	5
<input type="radio"/>	1

[Click to Save Answer & Move to Next Question](#)

Question # 9 of 10 (Start time: 09:36:14 PM, 15 June 2022)

The function defined from Z to Z as $f(x) = \frac{1}{(x+2)(x-2)}$ is not well defined because.....

Select the correct option

<input type="radio"/>	Function gives imaginary values for $x < 0$
<input type="radio"/>	Function is defined at $x=2$ but not defined at $x=-2$
<input checked="" type="radio"/>	Function is not defined at $x=-2$ and $x=2$
<input type="radio"/>	Each input has two outputs.

Let $A = \{2, 3, 4\}$ and $B = \{2, 6, 8\}$ and let R be the "divides" relation from A to B

i.e. for all (a, b) belong to (Cartesian product of A and B), $a R b$ iff $a | b$ (a divides b). Then

Select the correct option

$R = \{(2,2), (2,6), (2,8), (3,6), (4,8), (6,8)\}$

$R = \{(2,6), (3,6), (4,8)\}$

$R = \{(3,6), (3,8)\}$

$R = \{(2,2), (2,6), (2,8), (3,6), (4,8)\}$

[Click to Show Answer](#) [Click to Next Question](#)



Let $A = \{1, 2, 3, 4, 5\}$ and $B = \{4, 9, 16, 17, 25\}$. Then the relation $R = \{(2, 4), (3, 9), (4, 16), (3, 17)\}$. Then inverse of R is _____.

Select the correct option

<input type="radio"/>	$\{(4, 2), (9, 3), (4, 16), (3, 17)\}$
<input checked="" type="radio"/>	$\{(4, 2), (9, 3), (16, 4), (17, 3)\}$
<input type="radio"/>	None of the above
<input type="radio"/>	$\{(2, 4), (3, 9), (16, 4), (17, 3)\}$

Q E E

[Click to Copy Answer & Report to Your Instructor](#)

Which relations below are not functions?

Select the correct option



$\{(-1,2),(-4,51),(1,2),(8,-51)\}$



$\{(13,14),(13,5),(16,7),(18,13)\}$



$\{(3,90),(4,54),(6,71),(8,90)\}$



$\{(3,1),(4,54),(6,71),(9,91)\}$

Click to Save Answer / View to Next Question



Question # 3 of 10 (Start time: 09:05:55 PM, 15 June 2022)

Total Marks: 1

Range of function

$$f(x) = |x|$$

will be

Select the correct option

[Reload Math Equations](#)

- | | |
|-----------------------|------------------------------|
| <input type="radio"/> | Set of real numbers |
| <input type="radio"/> | Set of positive real numbers |
| <input type="radio"/> | Set of negative real numbers |
| <input type="radio"/> | Set of whole numbers |

[Click to Show Answer & Move to Next Question](#)

Why the function $f : Z \rightarrow R$ defined by $f(x) = \frac{1}{x^2-25}$ is not well defined?

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | Because f is not defined for $x < 0$. |
| <input type="radio"/> | Because f is not defined for $x > 0$. |
| <input type="radio"/> | Because f gives imaginary values for all integers, |
| <input checked="" type="radio"/> | Because f is not defined for 5 and -5. |



Question # 7 of 10 (Start time: 08:56:39 PM, 15 June 2022)

Total Marks: 1

Let f be a function from $X = \{2,4,5\}$ to $Y = \{1,2,4,6\}$ defined as: $f = \{(2,6), (4,2), (5,1)\}$
Then range of f is _____ .

Select the correct option

<input type="radio"/>	2,4,5
<input type="radio"/>	1,2,6
<input checked="" type="radio"/>	{1,2,6}
<input type="radio"/>	{2,4,5}

Go to Question / Previous / Next / Done



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Question # 6 of 10 (Start time: 05:02:02 PM, 15 June 2022)

Total Ma

If $A=(1,2,3)$ & $B=(4,5,6)$ and $R=\{(1,4)(2,5)(3,6)(3,4)\}$ The complementar relation is

Select the correct option

 $A \times B$ (Union) R $A \times B$ (difference or -) R $A \times B$ (intersection) R $A \times B$ [Click here to return to the question](#)

Which of the following logical connective is not a binary operation?

Select the correct option

<input type="radio"/>	Implication
<input type="radio"/>	Conjunction
<input checked="" type="radio"/>	Negation
<input type="radio"/>	Disjunction

Click on the answer if there is a next question



Question # 7 of 10 (Start time: 08:18:40 PM, 15 June 2022)

If $A = \{1, 2, 3\}$ is a set and $R = \{(1, 2), (2, 2), (2, 1)\}$ is a relation on A , R is

Select the correct option

<input type="radio"/>	None of these
<input checked="" type="radio"/>	Symmetric
<input type="radio"/>	Reflexive
<input type="radio"/>	Transitive

In the representation of an irreflexive relation using a matrix, all its diagonal entries will be

Select the correct option

<input type="radio"/>	1
<input type="radio"/>	2
<input checked="" type="radio"/>	0
<input type="radio"/>	-1

Q E O

Check Answer / Viewed / Previous / Next / Submit



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15 June, 20:05

MTH202:Quiz No.1

Quiz Start Time: 08:01 PM, 15 Jun

Question # 5 of 10 (Start time: 08:04:42 PM, 15 June 2022)

Total h

Let $A = \{1,2,3\}$ and $B = \{0,1,2\}$ and $C = \{a,b\}$ $R = \{(1,0),(1,2),(3,1),(3,2)\}$ $S = \{(0,b),(1,a),(2,b)\}$

Composite of R and S = _____.

Select the correct option

 $\{(1,b),(3,a),(3,b)\}$  $\{(1,a),(2,a),(3,a)\}$  $\{(1,a),(1,b),(2,a),(3,b)\}$  $\{(1,b),(1,a),(3,a),(3,b)\}$

Click to Save Answer / Move to Next Question

Question # 2 of 10 (Start time: 05:35:47 PM, 15 June 2022)

Total Marks:

For the relation below to be a function, x cannot be what values?

$$\{(12,14),(13,5),(-2,7),(x,13)\}$$

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | x cannot be 12, 13, or 2. |
| <input checked="" type="radio"/> | x cannot be 12, 13, or -2. Q E O |
| <input type="radio"/> | x cannot be 14, 7, or 13. |
| <input type="radio"/> | x cannot be 14, 5, or 7. |

[Click to See Answer & Move to Next Question](#)

Question # 9 of 10 (Start time: 09:45:55 PM, 15 June 2022)

If $A = \{1, 2, 3\}$ is a set and $R = \{(2, 3), (2, 2), (3, 4)\}$ is a relation on A , then R is

Select the correct option

<input type="radio"/>	Reflexive
<input type="radio"/>	Transitive
<input checked="" type="radio"/>	None of these
<input type="radio"/>	Symmetric

Question # 4 of 10 (Start time: 08:03:48 PM, 15 June 2022)

Total Marks: 1

If $A=(1,2,3)$ & $B=(4,5,6)$ and $R=\{(1,4)(2,5)(3,6)(3,4)\}$ The complementary relation is

Select the correct option

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | $A \times B$ (intersection) R |
| <input type="radio"/> | $A \times B$ (Union) R |
| <input type="radio"/> | $A \times B$ |
| <input checked="" type="radio"/> | $A \times B$ (difference or -) R |

[Click to Show Answer & Move to Next Question](#)

For any set A, the Cartesian product of A and A is known as

_____ .

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | Empty relation |
| <input type="radio"/> | Universal relation |

Click on the Answer or Move to Next Question



Question # 1 of 10 (Start time: 08:31:58 PM, 15 June 2022)

Total Marks: 1

Let $R = \{(1, 2), (3, 4), (5, 6), (7, 8)\}$. Range of the inverse of the relation is _____.

Select the correct option

<input type="radio"/>	{2, 4, 6, 8}
<input type="radio"/>	{1, 2, 3, 4}
<input checked="" type="radio"/>	{1, 3, 5, 7}
<input type="radio"/>	{5, 6, 7, 8}

[Click on See Answer & Move to Next Question](#)

Question # 5 of 10 (Start time: 09:18:00 PM, 15 June 2022)

Total Marks: 1

Let $A = \{1,2,3\}$ and R be the relation defined on A such that $R = \{(1,1), (1,2), (2,3), (3,1)\}$, then R is _____ .

Select the correct option

<input checked="" type="radio"/>	Antisymmetric
<input type="radio"/>	Symmetric

[Change Question](#) [Previous Question](#) [Next Question](#)

Let $A = \{1, 2, 3, 4, 5\}$ and $B = \{4, 9, 16, 17, 25\}$. Then the relation $R = \{(2, 4), (3, 9), (4, 16), (3, 17)\}$. Then inverse of R is _____.

Select the correct option

- $\{(4, 2), (9, 3), (16, 4), (17, 3)\}$
- $\{(2, 4), (3, 9), (16, 4), (17, 3)\}$
- $\{(4, 2), (9, 3), (4, 16), (3, 17)\}$
- None of the above

Q E C

Complete using this link



Question # 3 of 10 (Start time: 09:15:19 PM, 15 June 2022)

If a relation $R = \{(1,1)(2,1)(1,2)(2,2)\}$ is given then which of the following is not true about this relation.

Select the correct option

 R is Symmetric. R is Irreflexive. R is Transitive R is Reflexive.

Go to Previous Question / Next Question

↓
may be



Let $A = \{p, q, r, s\}$ and define a relation R on A by $R = \{(p, p), (p, r), (q, r), (q, s), (r, s)\}$ Then which one of the following is the correct statement about R :

Select the correct option

- | | |
|-----------------------|--------------------|
| <input type="radio"/> | R is transitive |
| <input type="radio"/> | R is reflexive |
| <input type="radio"/> | R is not reflexive |
| <input type="radio"/> | R is symmetry |

Go to Question 6 of 10 Questions



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Question # 8 of 10 (Start time: 09:30:38 PM, 15 June 2022)

The properties of being symmetric and being anti-symmetric are _____.

Select the correct option

<input checked="" type="radio"/>	Not negative of each other
<input type="radio"/>	Negative of each other

Let $A = \{4,5,6\}$ then The relation $R = \{(4,5), (5,4), (6,5), (5,6)\}$ is

_____.

Select the correct option

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | R is Transitive |
| <input checked="" type="radio"/> | R is Symmetric |
| <input type="radio"/> | R is Anti symmetric |
| <input type="radio"/> | R is Reflexive |

Click to View Answer | Move to Next Question

Question # 1 of 10 (Start time: 08:02:00 PM, 15 June 2022)

Total Marks: 1

For the following relation to be a function, x can not be what values?

$$R = \{(2,4), (x,1), (4,2), (5,6)\}$$

Select the correct option

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | x cannot be 4,1 or 6 |
| <input checked="" type="radio"/> | x cannot be 2,4 or 5 |
| <input type="radio"/> | x cannot be 2,4 or 6 |
| <input type="radio"/> | x cannot be 1,2 or 6 |

Q E O

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Go to Error / Answer / Move to Next Question

Question # 5 of 10 (Start time: 09:07:38 PM, 15 June 2022)

Total Marks: 1

Let $A = \{1, 2, 3, \dots, 50\}$ and $B = \{2, 4, 6, 8, 10\}$.
Then the Cartesian product of A and B has _____ elements.

Select the correct option

- 5
- 250
- 50
- 100

Question 5 of 10 (100%) (100%) (100%)

$$50 \times 5 = 250$$



Which of the following is not a type of a Relation?

Select the correct option

- Symmetric
- Permutation
- Transitive
- Reflexive

Click to Show Answer & Move to Next Question

$25 \equiv 1 \pmod{3}$ means that 3 divides

Select the correct option

<input type="radio"/>	25+1
<input type="radio"/>	25/1
<input type="radio"/>	25*1
<input checked="" type="radio"/>	25-1

Click to Save Answer / Click to Next Question

Domain of the relation $\{(0,1),(3,22),(90,34)\}$
is _____ .

Select the correct option

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | $\{1,22,34\}$ |
| <input type="radio"/> | $\{0,1,3\}$ |
| <input type="radio"/> | $\{0,1,3,22,90,34\}$ |
| <input checked="" type="radio"/> | $\{0,3,90\}$ |

Click to Save Answer or Move to Next Question

Question # 4 of 10 (Start time: 09:16:57 PM, 15 June 2022)

Total Marks: 1

$A = \{ 1, 2 \}$ $B = \{ 3, 4 \}$. $R = \{ (1, 3) (2, 4) \}$. Then the complement of R is _____.

Select the correct option

- $\{ (1, 4) (3, 2) \}$
- None of the above
- $\{ (4, 1) (2, 3) \}$
- $\{ (1, 4) (2, 3) \}$

Go to Question 1 of 10



Define a relation $R = \{(1,1), (2,2), (3,3), (1,3), (3,2)\}$ then relation is_____.

Select the correct option

- R is not reflexive and transitive
- R is reflexive and transitive
- R is reflexive and not transitive
- R is not reflexive and not transitive

[Click to Show Answer & Move to Next Question](#)



Question # 2 of 10 (Start time: 10:30:11 PM, 15 June 2022)

Suppose A has 3 elements and B has 4 elements, then the number of the binary relations from A to B that are functions is

Select the correct option

- $2^1 / 2^6$
- $2^6 / 2^{12}$
- $2^6 / 2^4$
- $2^6 / 2^8$

[Click to Save Answer](#)

QEO

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Add a caption...



Question # 1 of 10 (Start time: 06:05:39 PM, 15 June 2022)

The range of a function is alwaysthe co-domain of f .

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | a superset of |
| <input type="radio"/> | equal to |
| <input checked="" type="radio"/> | a subset of |
| <input type="radio"/> | not equal to |
- Q E D

Which is not a binary operation on the set of natural numbers N ?

Select the correct option

<input type="radio"/>	Addition
<input type="radio"/>	Subtraction
<input type="radio"/>	Multiplication
<input checked="" type="radio"/>	None of these.

QED



Question # 10 of 10 (Start time: 08:21:27 PM, 15 June 2022)

Total Marks: 1

Let $A = \{2, 3, 4\}$ and $B = \{2, 6, 8\}$ and let R be the "divides" relation from A to B
i.e. for all (a, b) belong to (Cartesian product of A and B), $a R b$ iff $a \mid b$ (a divides b). Then

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | $R = \{(2,2), (2,6), (2,8), (3,6), (4,8), (6,8)\}$ |
| <input type="radio"/> | $R = \{(3,6), (3,8)\}$ |
| <input checked="" type="radio"/> | $R = \{(2,2), (2,6), (2,8), (3,6), (4,8)\}$ |
| <input type="radio"/> | $R = \{(2,6), (3,6), (4,8)\}$ |

[Click to Show Answer & Move to Next Question](#)

Question # 3 of 10 (Start time: 08:35:08 PM, 15 June 2022)

Total Marks: 1

$A = \{ 1, 2\}$ $B = \{ 3, 4\}$. $R = \{ (1, 3) (2, 4) \}$. Then the complement of R is _____.

Select the correct option

- | | |
|-----------------------|-----------------------|
| <input type="radio"/> | $\{ (4, 1) (2, 3) \}$ |
| <input type="radio"/> | $\{ (1, 4) (2, 3) \}$ |
| <input type="radio"/> | $\{ (1, 4) (3, 2) \}$ |
| <input type="radio"/> | None of the above |

[Click on the answer if you are not certain](#)

Question # 3 of 10 (Start time: 04:56:47 PM, 15 June 2022)

If $A = \{1, 2, 3\}$ is a set and $R = \{(1, 2), (2, 2), (2, 1)\}$ is a relation on A, R is

Select the correct option

<input type="radio"/>	Reflexive
<input type="radio"/>	None of these
<input checked="" type="radio"/>	Symmetric
<input type="radio"/>	Transitive

Let $A = \{4,5,6\}$ then The relation $R = \{(4,5), (5,4), (6,5), (5,6)\}$ is

_____.

Select the correct option

- R is Transitive
- R is Reflexive
- R is Symmetric
- R is Anti symmetric

Q E O

Click to Save Answer & Move to Next question



Question # 10 of 10 (Start time: 08:09:49 PM, 15 June 2022)

Let $S = \mathbb{R}$ and define the "square" relation $R = \{(x, y) | x^2 = y^2\}$. The square relation is an _____ relation

Select the correct option



Not equivalence relation



Equivalence relation

Let R be a binary relation on a set A . R is anti-symmetric iff

_____.

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | None of the above |
| <input type="radio"/> | $a, b \in A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a = b$ |
| <input type="radio"/> | $a, b \notin A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a \neq b$ |
| <input checked="" type="radio"/> | $a, b \in A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a \neq b$ |

$a \in A$

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Let R be a binary relation on a set A . If R is anti symmetric then _____ .

Select the correct option

- Inverse of R is symmetric
- Inverse of R is anti symmetric

Click to view answer & move to next question



Let $A = \{1,2,3,4\}$ and define the following relation on A . Then $R = \{(1,3), (2,2), (2,4), (3,1), (4,2)\}$ is _____.

Select the correct option

R is Antisymmetric

R is Symmetric

Q E O

Give an answer (True/False)

Question # 5 of 10 (Start time: 08:04:42 PM, 15 June 2022)

Total P

Let $A = \{1,2,3\}$ and $B = \{0,1,2\}$ and $C = \{a,b\}$ $R = \{(1,0),(1,2),(3,1),(3,2)\}$ $S = \{(0,b),(1,a),(2,b)\}$

Composite of R and S = _____ .

Select the correct option

- | | |
|----------------------------------|-------------------------------|
| <input type="radio"/> | $\{(1,b),(3,a),(3,b)\}$ |
| <input type="radio"/> | $\{(1,a),(2,a),(3,a)\}$ |
| <input type="radio"/> | $\{(1,a),(1,b),(2,a),(3,b)\}$ |
| <input checked="" type="radio"/> | $\{(1,b),(1,a),(3,a),(3,b)\}$ |

Q E O

Click to Save Answer | Click to Next Question

The logic gates OR and AND are uniary operation on $\{0,1\}$.

Select the correct option

- False
- True

OR AND
Binary



Cartesian product of two sets symbolically written as

_____.

Select the correct option

$$A \times B = \{(a, b) \mid a \notin A \text{ and } b \notin B\}$$

$$A \times B = \{(a, b) \mid a \in A \text{ and } b \in B\}$$

$$A \times B = \{(a, b) \mid a \in A \text{ and } b \notin B\}$$

$$A \times B = \{(a, b) \mid a \notin A \text{ and } b \in B\}$$

Go to Question 2 / Move to First Question

Let $A = \{1, 2, 3, \dots, 50\}$ and $B = \{2, 4, 6, 8, 10\}$.
Then the Cartesian product of A and B has _____ elements.

Select the correct option

<input type="radio"/>	5
<input type="radio"/>	50
<input type="radio"/>	100
<input checked="" type="radio"/>	250

$$50 \times 5 = 250$$

Question # 1 of 10 (Start time: 09:34:50 PM, 15 June 2022)

Total Marks:

The logic gate NOT is a uniary operation on $\{0,1\}$.

Select the correct option

<input checked="" type="radio"/>	True
<input type="radio"/>	False

[Click to Save / Answer / Move to Next Question](#)

The inverse relation R^{-1} from B to A is defined as

_____.

Select the correct option

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | $R^{-1} = \{(b,a) \in B \times A \mid (a,b) \in R\}$ |
| <input type="radio"/> | $R^{-1} = \{(b,a) \in B \times A \mid (b,a) \in R\}$ |
| <input type="radio"/> | $R^{-1} = \{(b,a) \notin B \times A \mid (a,b) \in R\}$ |
| <input type="radio"/> | None of the above |

[Click to Save Answer & Move to Next Question](#)



If a relation $R = \{(1,1)(2,1)(1,2)(2,2)\}$ is given then which of the following is not true about this relation.

Select the correct option

R is Symmetric.

R is Irreflexive.

?

R is Reflexive.

R is Transitive

may be

Click to Save Answer & Move to Next Question

Question # 6 of 10 (Start time: 08:17:59 PM, 15 June 2022)

Total Marks: 1

Input values of the function are called the

Select the correct option

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | None of these. |
| <input checked="" type="radio"/> | Domain |
| <input type="radio"/> | Range |
| <input type="radio"/> | Relation |

Click on the answer to mark it as correct

Question # 3 of 10 (Start time: 08:15:06 PM, 15 June 2022)

Total Marks: 1

Which of the following is always true for the matrix representation of a symmetric relation?

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | Matrix is singular |
| <input type="radio"/> | Matrix has always 1 in its diagonal entries |
| <input checked="" type="radio"/> | Matrix is equal to its transpose. |
| <input type="radio"/> | Matrix has always 0 in its diagonal entries |

[Click to Show Answer](#) | [Move to Next Question](#)

Let $A = \{1,2,3,4\}$ and define the relation R on A by
 $R = \{(1,2), (2,3), (3,3), (3,4)\}$. Then _____

Select the correct option

- | | |
|-----------------------|--|
| <input type="radio"/> | R is both reflexive and irreflexive |
| <input type="radio"/> | R is irreflexive |
| <input type="radio"/> | R is neither reflexive nor irreflexive |
| <input type="radio"/> | R is reflexive |

Click on Answer / Flag this Question



The inverse relation R^{-1} from B to A is defined as

Select the correct option

$R^{-1} = \{(b,a) \in B \times A \mid (a,b) \in R\}$

Q E O

$R^{-1} = \{(b,a) \notin B \times A \mid (a,b) \in R\}$

None of the above

$R^{-1} = \{(b,a) \in B \times A \mid (b,a) \in R\}$

Click to find Answer & Move to Next Question

Given $A=\{1,2\}$ and $B=\{5,6,7\}$, then $B \times A =$ _____.

Select the correct option

<input type="radio"/>	$\{(1,5), (1,6), (1,7), (2,5), (2,6)\}$
<input checked="" type="radio"/>	$\{(5,1), (5,2), (6,1), (6,2), (7,1), (7,2)\}$
<input type="radio"/>	$\{(5,1), (5,2), (6,1), (6,2), (7,1)\}$
<input type="radio"/>	$\{(1,5), (1,6), (1,7), (2,5), (2,6), (2,7)\}$

Q E O

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WIS



In the directed graph of an antisymmetric relation there ispair of arrows between two distinct elements of the set.

Select the correct option

<input type="radio"/>	infinite
<input type="radio"/>	two
<input checked="" type="radio"/>	no
<input type="radio"/>	one

Q E D

Click to See Answer & Move to Next Question

For the following relation to be a function, x can not be what values?

$$R = \{(2,4), (x,1), (4,2), (5,6)\}$$

Select the correct option

x cannot be 1,2 or 6

x cannot be 2,4 or 5

x cannot be 4,1 or 6

x cannot be 2,4 or 6

Q E O

Click on the correct answer to see the correct answer

Question # 5 of 10 (Start time: 08:17:02 PM, 15 June 2022)

Tot

Let $A = \{1,2,3,4\}$ and define the following relations on A
Then
 $R = \{(1,3), (1,4), (2,3), (2,4), (3,1), (3,4)\}$ is _____.

Select the correct option

<input checked="" type="radio"/>	R is irreflexive
<input type="radio"/>	R is both reflexive and irreflexive
<input type="radio"/>	R is reflexive
<input type="radio"/>	None of the above

[Click to View Answer & Move to Next Question](#)

BC200403342: SIDRA JAVED

Time Left 89 sec(s)

MTH202: Quiz No. 1

Quiz Start Time: 08:13 PM, 15 June 2022

Question # 9 of 10 (Start time: 08:20:28 PM, 15 June 2022)

Total Marks:

Suppose A has 3 elements and B has 4 elements, then the number of functions from A to B are.....

Select the correct option

Reload Math Equations

- 81
- 7
- 12
- 64

Click to Save Answer / Move to Next Question

$$4^3 = 64$$

Question # 18 of 10 (Start time: 09:00:02 PM, 15 June 2022)

Total Marks: 1

There is atleast one loop in the graph of an irreflexive relation.

Select the correct option

<input type="radio"/>	True
<input checked="" type="radio"/>	False

[Go to Question / Answer](#) | [Mark as Incorrect](#)

LWS



If R is transitive then the inverse relation will be transitive.

Select the correct option

<input type="radio"/>	false
<input checked="" type="radio"/>	true

Click to Save Answer & Move to Next Question



Question # 1 of 10 (Start time: 09:20:43 PM, 15 June 2022)

Let $A = \{4,5,6\}$ then The relation $R = \{(4,5), (5,4), (6,5), (5,6)\}$ is _____.

Select the correct option

<input type="radio"/>	R is Reflexive
<input checked="" type="radio"/>	R is Symmetric
<input type="radio"/>	R is Anti symmetric
<input type="radio"/>	R is Transitive

In the directed graph of an antisymmetric relation there ispair of arrows between two distinct elements of the set.

Select the correct option

<input type="radio"/>	one
<input checked="" type="radio"/>	no
<input type="radio"/>	infinite
<input type="radio"/>	two

Click on Save / Answer & Move to Next Question



Question # 1 of 10 (Start time: 08:13:04 PM, 15 June 2022)

Total Marks:

Complementary Relation symbolically written as _____.

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | $\bar{R} = A \times B - R = \{(a,b) \in A \times B \mid (a,b) \in R\}$ |
| <input checked="" type="radio"/> | $\bar{R} = A \times B - R = \{(a,b) \in A \times B \mid (a,b) \notin R\}$ |

[Click to Save Answer & Move to Next Question](#)

The domain of a relation R from A to B is symbolically written as:

Select the correct option

<input type="radio"/>	$D(R) = \{a \text{ belongs to } B \text{ such that } (a,b) \text{ belongs to } R\}$
<input checked="" type="radio"/>	$D(R) = \{a \text{ belongs to } A \text{ such that } (a,b) \text{ belongs to } R\}$

Go to Question 1 of 10 (10/10)