

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

- | | |
|-----------------------|-----------------|
| ☐ | (2,0) and (2,2) |
| ☐ | (0,0) and (2,2) |
| ☐ | (0,0) and (0,2) |
| ☐ | (2,0) and (0,2) |

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Click to Save Answer & Move to Next Question

If A contains 3 elements and B contains 2 elements, then number of subsets of $A \times B$ are

Select the correct option

- | | |
|----------------------------------|----|
| ☒ | 64 |
| ☐ | 6 |
| ☐ | 12 |
| ☐ | 32 |

Click on the answer, Move to Next Question

Question # 9 of 10 (Start time: 06:06:31 PM, 31 May 2021)

Total Marks: 1

A set may be divided up into its disjoint subsets, such division is called....

Select the correct option

- | | |
|----------------------------------|--------------|
| ☐ | intersection |
| ☐ | difference |
| ☒ | partition |
| ☐ | ordering |

Click to Save Answer & Move to Next Question

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

Select the correct option

☐	Subtraction
☐	Multiplication
☒	Division
☐	Addition

Go to Last / Previous / Home / Next Question

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 |

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Click to Save Answer & Move to Next Question

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

Select the correct option

☒ true

☐ false

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Click to see Answer & Move to Next Question

Question # 2 of 10 (Start time: 05:58:12 PM, 31 May 2021)

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

- | | |
|----------------------------------|--|
| ☒ | $R = \{(2, 2), (2, 6), (2, 8), (3, 6), (4, 8)\}$ |
| ☐ | $R = \{(3, 6), (3, 8)\}$ |
| ☐ | $R = \{(2, 2), (2, 6), (2, 8), (3, 6), (4, 8), (6, 8)\}$ |
| ☐ | $R = \{(2, 6), (3, 6), (4, 8)\}$ |

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Question # 10 of 10 (Start timer: 00:00:04 PM, 21 May 2021)

Total Marks: 1

Cartesian product of two sets symbolically written as

_____.

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Select the correct option

- | | |
|----------------------------------|--|
| ☐ | $A \times B = \{(a, b) a \notin A \text{ and } b \in B\}$ |
| ☒ | $A \times B = \{(a, b) a \in A \text{ and } b \in B\}$ |
| ☐ | $A \times B = \{(a, b) a \in A \text{ and } b \notin B\}$ |
| ☐ | $A \times B = \{(a, b) a \notin A \text{ and } b \notin B\}$ |

Click on the correct answer to mark as correct

Question # 9 of 10 (Start time: 05:54:15 PM, 31 May 2021)

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

- | | |
|----------------------------------|-----------------|
| ☐ | (2,0) and (2,2) |
| ☒ | (0,0) and (0,2) |
| ☐ | (0,0) and (2,2) |
| ☐ | (2,0) and (0,2) |

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Click to see answers & correct/incorrect

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

_____.

Select the correct option

- | | | |
|----------------------------------|--|---|
| ☒ | $a, b \in A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a = b$ |  |
| ☐ | $a, b \notin A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a \neq b$ | |
| ☐ | $a, b \in A$ if $(a,b) \in R$ and $(b,a) \in R$ then $a \neq b$ | |
| ☐ | None of the above | |

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Click on Save Answer & Mark as Final Answer

Composite Relation symbolically written as _____.

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Select the correct option

☐

$SoR = \{(a,c) | a \in A, c \in C, \exists b \in B, (a,b) \in R \text{ and } (b,c) \notin S\}$

☐

$SoR = \{(a,c) | a \in A, c \in C, \exists b \notin B, (a,b) \in R \text{ and } (b,c) \in S\}$

☐

None of the above

☐

$SoR = \{(a,c) | a \in A, c \in C, \exists b \in B, (a,b) \in R \text{ and } (b,c) \in S\}$



Question # 1 of 10 (Start time: 05:51:02 PM, 31 May 2021)

Total Marks: 1

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

☒	5
☐	1
☐	4
☐	2

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Complementary Relation symbolically written as _____.

Select the correct option



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



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

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Click on the correct answer to mark it as correct

Question # 4 of 10 (Start time: 05:48:07 PM, 21 May 2021)

Total Marks: 1

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

Select the correct option

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

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Click and drag to move a block to your desired position

Question # 3 of 10 (Start time: 05:47:17 PM, 31 May 2021)

Total Marks: 1

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

Select the correct option

- | | |
|----------------------------------|----------------------|
| ☐ | $\{0,1,3\}$ |
| ☐ | $\{0,1,3,22,90,34\}$ |
| ☐ | $\{1,22,34\}$ |
| ☒ | $\{0,3,90\}$ |
- 

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Total Marks: 1 (100%) (100%) (100%)

Operation of subtraction is a binary operation on the set of

.....

Select the correct option

- | | |
|-----------------------|-------------------|
| ☐ | Whole numbers |
| ☐ | Natural numbers |
| ☐ | Integers |
| ☐ | Positive integers |

Go to the next question

Vertical line test is used to determine that whether the graph of a relation is a function or not.

Select the correct option

False



True



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[Out of 100 Marks & 100% in Next One Hour]

If $f(x) = 4x - 8$, find $f(5)$

Select the correct option

- | | |
|-----------------------|----|
| ☐ | 18 |
| ☐ | 14 |
| ☐ | 15 |
| ☐ | 12 |
- 

Submit your answer

If a set A contains n elements then the number of elements in its power set P(A) is

Select the correct option

[Reload Math Equations](#)

- | | |
|-----------------------|--------|
| ☐ | 2^n |
| ☐ | n^n |
| ☐ | n^2 |
| ☐ | $2(n)$ |

[Click for Solution Answer & Manual for Next Question](#)

Question # 10 of 10 (Start time: 05:10:51 PM, 31 May 2021)

Total Marks:

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

Select the correct option

- | | |
|-----------------------|--------------|
| ☐ | {1, 3, 5, 7} |
| ☐ | {1, 2, 3, 4} |
| ☐ | {2, 4, 6, 8} |
| ☐ | {5, 6, 7, 8} |

Click to Show Answer & Move to Next Question

Question # 9 of 10 (Start time: 05:19:17 PM, 31 May 2021)

Total Marks:

Range of a relation symbolically written as _____.

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Select the correct option



$$\text{Ran } (R) = \{b \in B \mid (a, b) \in R\}$$



$$\text{Ran } (R) = \{a \in A \mid (a, b) \in R\}$$



$$\text{Ran } (R) = \{b \in B \mid (a, b) \in R\}$$



None of the above



Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 05:18:36 PM, 31 May 2021)

Total Marks:

A set may be divided up into its disjoint subsets, such division is called....

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Select the correct option



intersection



difference



ordering



partition

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

Question # 6 of 10 (Start time: 05:15:20 PM, 31 May 2021)

Total Marks: 1

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

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Select the correct option

☐Inverse of R is symmetric☒Inverse of R is anti symmetric

Click to See Answer & Move to Next Question

Let R and S be transitive relations on a set A then

_____ .

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Select the correct option

- ☐ $R \cup S$ is transitive
- ☐ Both $R \cup S$ and $R \cap S$ are transitive
- ☐ Neither $R \cup S$ is transitive nor $R \cap S$ is transitive
- ☐ $R \cap S$ is transitive



Click to See Answer & Move to Next Question

Question # 4 of 10 (Start time: 05:13:31 PM, 31 May 2021)

Total Marks: 1

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

_____ .

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Select the correct option

☐

Empty relation

☐

Universal relation



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Question # 3 of 10 (Start time: 05:12:27 PM, 31 May 2021)

Total Marks:

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

Select the correct option

- ☐ 2
- ☐ -1
- ☐ 1
- ☒ 0

Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 05:11:53 PM, 31 May 2021)

Let A be a set with m elements and B be a set with n elements then the number of elements in

$$A \times B$$

are _____

Select the correct option

- | | |
|-----------------------|-------------|
| ☐ | n^m |
| ☐ | 2^{mn} |
| ☐ | m^n |
| ☐ | $m \cdot n$ |

Click to Save Answer

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Question # 1 of 10 (Start time: 05:11:10 PM, 31 May 2021)

Total Marks:

$R = \{(a,1)(b,2)(c,3)(d,4)\}$ then the inverse of this relation is.....

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Select the correct option

- | | |
|----------------------------------|----------------------------|
| ☒ | $\{(1,a)(2,b)(3,c)(4,d)\}$ |
| ☐ | $\{(a,1)(b,2)(3,c)(4,d)\}$ |
| ☐ | $\{(a,1)(2,b)(3,c)(4,d)\}$ |
| ☐ | $\{(1,a)(b,2)(3,c)(4,d)\}$ |

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

Question # 9 of 10 (Start time: 04:19:45 PM, 31 May 2021)

Total Marks: 1

In matrix representation of a relation, the diagonal entries are always 1.

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Select the correct option

- | | |
|----------------------------------|------------|
| ☐ | Null |
| ☒ | Reflexive |
| ☐ | Transitive |
| ☐ | Symmetric |

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Let $A = \{1, 2\}$, then $P(A) = \underline{\hspace{2cm}}$.

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Select the correct option

- | | |
|----------------------------------|------------------------------------|
| ☐ | $\{\{\}, \{1\}, \{1, 2\}\}$ |
| ☐ | $\{\{\}, \{2\}, \{1, 2\}\}$ |
| ☒ | $\{\{\}, \{1\}, \{2\}, \{1, 2\}\}$ |
| ☐ | $\{\{\}, \{1\}, \{2\}\}$ |

Click on Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 04:18:03 PM, 31 May 2021)

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

- | | |
|----------------------------------|-----|
| ☐ | 100 |
| ☐ | 50 |
| ☐ | 5 |
| ☒ | 250 |



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

Select the correct option

True



False



Click on the Answer & Move to next Question

Question # 10 of 10 (Start time: 04:09:27 PM, 31 May 2021)

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 Symmetric

☒ R is Antisymmetric

MTH202-Quiz#1

Question # 9 of 10 (Start time: 04:08:10 PM, 31 May 2021)

A set may be divided up into its disjoint subsets, such division is called....

Select the correct option

☐

difference

☐

partition

☐

intersection

☐

ordering

Question # 6 of 10 (Start time: 04:04:59 PM, 31 May 2021)

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 reflexive.

Select the correct option



$(2,0)$ and $(0,2)$



$(0,0)$ and $(2,2)$



$(2,0)$ and $(2,2)$



$(0,0)$ and $(0,2)$

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MTH202 Quiz#1

Question # 5 of 10 (Start time: 04:04:11 PM, 31 May 2021)

$R = \{(a,1)(b,2)(c,3)(d,4)\}$ then the inverse of this relation is.....

Select the correct option

- | | |
|----------------------------------|----------------------------|
| ☒ | $\{(1,a)(2,b)(3,c)(4,d)\}$ |
| ☐ | $\{(a,1)(b,2)(3,c)(4,d)\}$ |
| ☐ | $\{(1,a)(b,2)(3,c)(4,d)\}$ |
| ☐ | $\{(a,1)(2,b)(3,c)(4,d)\}$ |