



# MATHS

# **BOOKS - RD SHARMA MATHS (HINGLISH)**

# RELATIONS

Solved Examples And Exercises

**1.** Let R be the relation on Z defined by  $R = \{(a, b) : a, b \in , a - b \text{ is an } d \in \}$ 

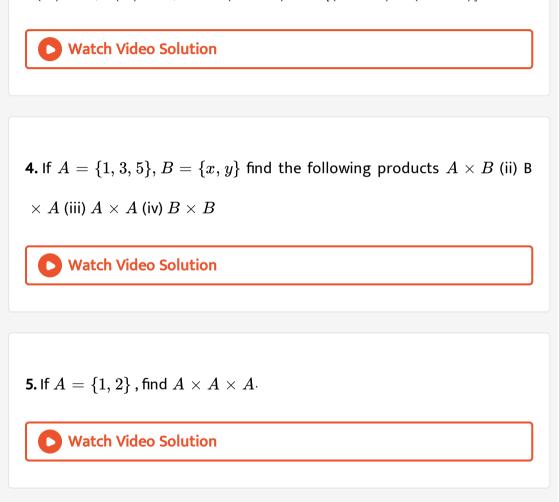
integer}. Find the domain and range of R.

Watch Video Solution

**2.** If  $A = \{1, 2, 4\}, B = \{2, 4, 5\}, C = \{2, 5\}, then(A - B) \times (B - C)$ 

is (a){(1, 2), (1, 5), (2, 5)} (b) {(1, 4)} (c) (1, 4) (d) none of these.

3. If AandB are two sets having 3 elements in common. If n(A) = 5, n(B) = 4, find  $n(A \times B)andn[(A \times B) \cap (B \times A)]$ .



6. Theorem 2 (For any three set A; B; C; prove that A imes (B-C) = (A imes B) - (A imes C)

7. For any three sets 
$$A, B, C$$
 prove that:  
 $A \times (B' \cup C')' = (A \times B) \cap (A \times C)$  and  
 $A \times (B' \cap C')' = (A \times B) \cup (A \times C)$ 

Watch Video Solution

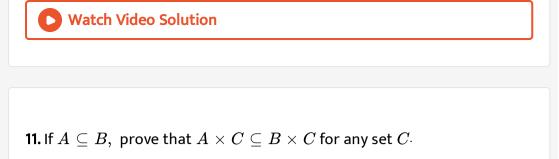
**8.** If  $B\subseteq A,\,$  show that  $B imes B\subseteq (A imes B)\cap (B imes A).$ 

Watch Video Solution

9. If AandB are any two non-empty sets, then prove that:  $A \times B = B \times AA = B$ .

Watch Video Solution

10. If  $A \subseteq B$ , and  $C \subseteq D$ , prove that  $A imes C \subseteq B imes D$ .





12. If R is a relation on the set  $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$  given by xRy, x = 3y, then R =

A.  $\{(3, 1), (6, 2), (8, 2), (9, 3)\}$ 

 $\mathsf{B}.\,\{(3,1),\,(6,2),\,(9,3)\}$ 

 $\mathsf{C}.\left\{(3,1),(2,6),(3,9)\right\}$ 

D. none of these

#### Answer: B

**13.** If  $A = \{1, 2, 3\}, B = \{4, 5, 6\}$ , which of the following are relations from  $A \to B$ ? Give reasons in support of your answer.  $\{(1, 6), (3, 4), (5, 2)\}$  (ii)  $\{(1, 5), (2, 6), (3, 4), (3, 6)\}$  (iii)  $\{(4, 2), (4, 3), (5, 1)\}$  (iv)  $A \times B$ .



14.  $A = \{1, 2, 3. 5\}$  and  $B = \{4, 6, 9\}$ . Define a relation R from A to B by R = {(x, y): the difference between x and y is odd:  $x \in A$ ,  $y \in B$  }. Write R in roster form.

## Watch Video Solution

**15.** A relation R is defined from  $\{2, 3, 4, 5, \}$  to $\{3, 6, 7, 10\}$ by : xRy: x is relatively prime to y. Then, domain of R is (a) $\{2, 3, 5, \}$  (b)  $\{3, 5, \}$  (c)  $\{2, 3, 4, \}$  (d)  $\{2, 3, 4, 5, \}$ .

16. Let R be a relation in N defined by  $(x,y)\in Rx+2y=8$  . Express

 $RandR^{-1}$  as sets of ordered pairs.



**17.** The Cartesian product  $A \times A$  has 9 elements among which are found (-1, 0) and (0, 1). Find the set A and the remaining elements of  $A \times A$ .

Watch Video Solution

18. Let  $A=\{-1,3,5\}$  and  $B=\{2,3\}$  find the following products (i)

A imes B (ii) B imes A (iii) A imes A

#### Watch Video Solution

19. Express  $A = \{(a, b) : 2a + b = 5, a, b \in W\}$  as the set ordered pairs.

**20.** If  $A \times B = \{(a, 1)(b, 3), (a, 3), (b, 1), (a, 2), (b, 2)\}$ , find AandB.



- **21.** Let  $A = \{1, 2, 3\}$ and  $B = \{x \colon x \in N, x \text{ is prime less than 5}\}$ . Find
- A imes BandB imes A

Watch Video Solution

**22.** If  $A imes B = \{(a,1)(a,5), (a,2), (b,2), (b,5), (b,1)\}$ , find B imes A.

Watch Video Solution

**23.** If  $A = \{1, 2\}, B = \{3, 4\} and C = \{4, 5, 6\} Then,$  $A \times B = \{1, 2\} \times \{3, 4\} - f(1, 3), (1, 4), (2, 3), (2, 4)\}$ 

$$A imes B = \{1,2\} imes \{3,4\} = \{(1,3),(1,4),(2,3),(2,4)\}$$

**24.** Find xandy, if (x + 3, 5) = (6, 2x + y).



25. If 
$$A = \{a, b\}$$
 and  $B = \{1, 2, 3\}$ , find  $A \times B, B \times A$  and  $(A \times B) \cap (B \times A)$ 

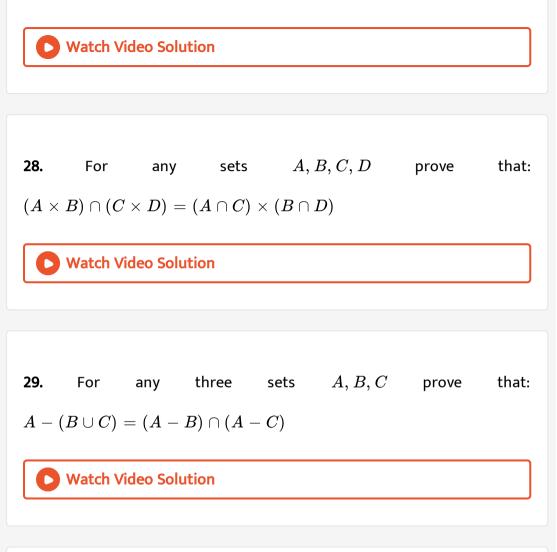
Watch Video Solution

26. If  $A = \{1, 2, 3\}, B = \{4\}, C = \{5\}$ , then verify that:  $A \times (B \cup C) = (A \times B) \cup (A \times C)$ 

## Watch Video Solution

27. A relation R is defined from a set  $A=\{2,3,4,5\}$  to a set B=3,6,7,10 as follows:  $(x,y\in R\colon x ext{ divides } y ext{ Express } R ext{ as a set of }$ 

#### ordred pairs and determine the domain and range of ${\boldsymbol R}$



**30.** Theorem 9(A and B are two non empty set having n element in common ; then prove that  $A \times B$  and  $B \times A$  have  $n^2$  element in common.)

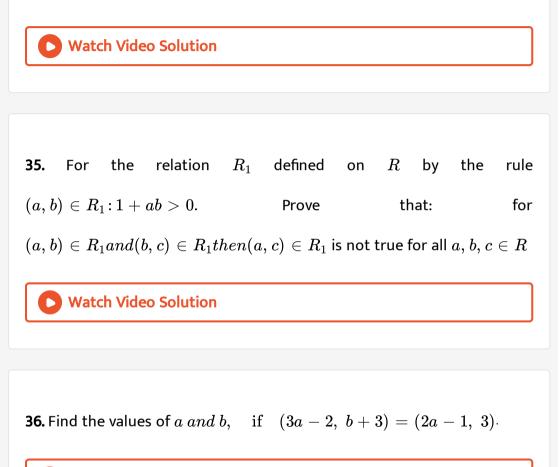
**31.** Let A be a non-empty set such that A imes B = A imes C . Show that B = C .

32. Let R be the relation on the set N of natural numbers defined by  $R=\{(a,b):a+3b=12,a\in N,b\in N\}$ . Find : (i) R (ii)  $Doma\in ofR$  (iii)  $Ran\geq ofR$ 

Watch Video Solution

**33.** If R is the relation "less than" from  $A = \{1, 2, 3, 4, 5\}$  to  $B = \{1, 4, 5\}$ , write down the set of ordered pairs corresponding to R. Find the inverse of R.

**34.** A relation R is defined on the set Z of integers as:  $(x,y) \in Rx^2 + y^2 = 25$ . Express  $RandR^{-1}$  as the sets of ordered pairs and hence find their respective domains.



**37.** If  $A = \{1, 3, 5\}$ and  $B = \{2, 3\}$ , find A imes B and B imes A.

**38.** If  $A = \{1, 2, 3\}, \; B = \{3, 4\} and \; C = \{1, 3, 5\}$  , find  $A imes (B \cup C)$ 



**39.** If  $A = \{1, 2, 3\}, \; B = \{3, 4\} and \; C = \{1, 3, 5\}$  , find  $A imes (B \cap C)$ 

Watch Video Solution

**40.** If 
$$A = \{1, 2, 3\}, \ B = \{3, 4\} and \ C = \{1, 3, 5\}$$
 , find  $(A \times B) \cap (A \times C)$ 

Watch Video Solution

**41.** If  $A=\{1,2\}, ext{ from the set } A imes A imes A$ 

**42.** If R is the set of all real numbers, what do the cartesian products

R imes R and R imes R imes R represent?



**43.** Let A and B be two sets such that  $A \times B$  consists of 6 elements. If three elements of  $A \times B$  are: (1, 4), (2, 6), (3, 6). Find  $A \times B$  and  $B \times A$ .

> Watch Video Solution

**44.** Let A and B be two sets such that n(A) = 5 and n(B) = 2, if a, b, c, d, e are distinct and (a, 2), (b, 3), (c, 2), (d, 3), (e, 2) are in  $A \times B$ , find A and B.

**45.** If 
$$\left(rac{a}{3}-1,\ b-rac{1}{3}
ight)=\left(rac{5}{3},rac{2}{3}
ight)$$
 , find the values of  $a$  and  $b$ 

Watch Video Solution

**46.** If the ordered pairs (x, -1) and (5, y) belong to the set  $\{(a, b): b = 2a - 3\}$  , find the values of x and y.

Watch Video Solution

**47.** If (x + 1, 1) = (3, y - 2), find the value of x and y.

Watch Video Solution

**48.** If  $a\in\{2,4,6,9\}$  and  $b\in\{4,6,18,27\}$  , then from the set of al ordered pairs (a,b) such that a divides b

**49.** if  $A = \{1, 2\}$  and  $B = \{1, 3\}$ , find  $A \times B$  and  $B \times A$ .



50. If 
$$A=\{1,2,3\}$$
 and  $B=\{3,4\}$ . Find  $A imes B$ 



**51.** If 
$$A = \{1, 2, 3\}$$
 and  $B = \{2, 4\}$ , find  $A \times B$ 



52. Let A and B be two sets such that  $n(A) = 3 \ and \ n(B) = 2$ . if  $(x, 1), \ (y, 2), \ (z, 1)are \in A \times B$ ,

find A and B, where x, y, z are distinct elements.

**53.** Let  $A = \{1, 2, 3, 4\}$  and  $R = \{(a, b) : a \in A, b \in A, a \text{ divides } b\}$ .

Write R explicity.

#### Watch Video Solution

**54.** State whether each of the following statements are true or false. If the statement is false re-write the given statement correctly: (i) If  $p = \{m, n\}$  and  $Q = \{n, m\}$ , then  $P \times Q = \{(m, n), (n, m)\}$  (ii) If A and B are non empty sets then  $A \times B$  is a non empty set of ordered pairs (x, y) such that  $x \in B$  and  $y \in A$ . (iii) If  $A = \{1, 2\}, B = \{3, 4\}, then A \times (B \cap \varphi) = \varphi$ .

#### Watch Video Solution

55. If  $A = \{1, 2\}$ , form the set  $A \times A \times A_{\cdot}$ 

**56.** If  $A = \{1, 2, 4\}$  and  $B = \{1, 2, 3\}$  , represent following sets - A imes B



57. If  $A = \{1, 2, 4\} and \ B = \{1, 2, 3\}$  , represent following sets - A imes B

Watch Video Solution

58. If  $A=\{1,2,4\}$  and  $B=\{1,2,3\}$  , represent following sets - A imes A

Watch Video Solution

**59.** If  $A = \{1, 2, 4\}$  and  $B = \{1, 2, 3\}$  , represent following sets - B imes B

Watch Video Solution

**60.** If  $A = \{2, 3\}, \ B = \{4, 5\}, \ C = \{5, 6\}, \setminus \mathsf{find} \ A imes (B \cup C)$ 

**61.** Let  $A = \{1, 2\}, B = \{1, 2, 3, 4\}, C = \{5, 6\}$  and  $D = \{5, 6, 7, 8\}$ .

Verity that:  $A imes C \subset B imes D$ 

Watch Video Solution

**62.** Let  $A = \{1, 2\}, B = \{1, 2, 3, 4\}, C = \{5, 6\}$  and  $D = \{5, 6, 7, 8\}$ .

Verity that:  $A imes (B \cap C) = (A imes B) \cap (A imes C)$ 

Watch Video Solution

**63.** If  $A=\{1,2,3\},\;B=\{3,4\},\;C=\{4,5,6\},\;f\in d:A imes(B\cap C)$ 

$$A=\{1,2,3\},\;B=\{3,4,5\},\;C=\{4,6\},\;f\in d:(A imes B)\cap (A imes C)$$

## 65.

If

If

 $A=\{1,2,3\},\;B=\{1,2,3,4\},\;C=\{4,5,6\},\;f\in d:A imes (B\cup C)$ 

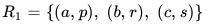
Watch Video Solution

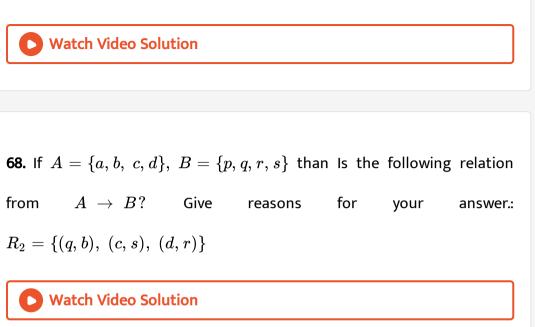
#### 66.

 $A=\{1,2,3\},\;B=\{1,2,3,4\},\;C=\{4,5,6\},\;f\in d:(A imes B)\cap (A imes C)$ 

## Watch Video Solution

**67.** If  $A = \{a, b, c, d\}$ ,  $B = \{p, q, r, s\}$  than is the following relation from  $A \rightarrow B$ ? Give reasons for your answer.:





69. If 
$$A = \{a, b, c, d\}$$
,  $B = \{p, q, r, s\}$  than Is the following relation  
from  $A \rightarrow B$ ? Give reasons for your answer.:  
 $R_3 = \{(a, p), (a, q), (d, p), (c, r), (b, r)\}$ 

## Watch Video Solution

70. If  $A = \{a, b, c, d\}, B = \{p, q, r, s\}$  than is the following relation from  $A \to B$ ? Give reasons for your answer.:

$$R_4=\{(a,p),\;(q,a),\;(b,s),\;(s,b)\}$$



71. If 
$$A = \{1, 3, 5, 7\}, B = \{2, 4, 6, 8, 10\}$$
 and let  $R = \{(1, 8), (3, 6), (5, 2), (1, 4)\}$  be a relation form A to B. Then, find Domain(R)

Watch Video Solution

**72.** If R is a relation from set  $A = \{2, 4, 5\}$  to set  $B = \{1, 2, 3, 4, 6, 8\}$ defined by  $xRy \Leftrightarrow x$  divides y. Write R as a set of ordered pairs Find the domain and the range of R.



73. If  $A = \{1, 2, 3\}, B = \{4, 5, 6\}$  Is the following ralation from  $A \rightarrow B$ ? Give reason in support of your answer:

 $R_1=\{(1,4),\ (1,5),\ (1,6)\}$ 



74. If 
$$A = \{1, 2, 3\}, B = \{4, 5, 6\}$$
 Is the following relation from  
 $A \rightarrow B$ ? Give reason in support of your answer:  
 $R_2 = \{(1, 5), (2, 4), (3, 6)\}$ 

Watch Video Solution

75. If  $A = \{1, 2, 3\}, B = \{4, 5, 6\}$  Is the following relatios from  $A \rightarrow B$ ? Give reason in support of your answer:  $R_3 = \{(1, 4), (1, 5), (3, 6), (2, 6), (3, 4)\}$ 

## Watch Video Solution

76. If  $A = \{1, 2, 3\}, B = \{4, 5, 6\}$  then, Is the following relation from  $A \rightarrow B$ ? Give reason in support of your answer:

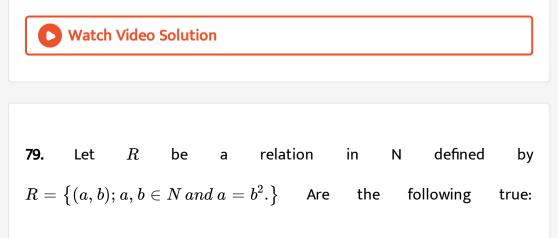
 $R_4=\{(4,2),\ (2,6),\ (5,1),(2,4)\}$ 



77. Let  $A = \{1, 2, 3, 4, 5, 6\}$ . Define a relation R on set A by  $R = \{(x, y) : y = x + 1\}$  Write down the domain, co domain and range of R.

Watch Video Solution

**78.** Figure 2.14 shows a relation R between the sets P and Q. Write this relation R in i. Roster form ii. Set builder form. What is it's domain and range?



 $(i) \ (a,a) \in R \ orall \ a \in N$   $(ii) \ (a,b) \in R \Rightarrow (b,a) \in R$ 

$$(iii)~(a,b)\in R, (b,c)\in R \Rightarrow (a,c)\in R$$



**80.** A relation R is defined from a set  $A = \{2, 3, 4, 5\} \rightarrow a \ set \ B = \{3, 6, 7, 10\}$  as follows:  $(x, y) \in R \Leftrightarrow x$ is relatively prime to y. Express R as a set of ordered pairs and determine its domain and range.

Watch Video Solution

81. Let A be the set of first five natural numbers and let R be a relation on A defined as follows  $(x, y) \in R \Leftrightarrow x \leq y$ . Express R and  $R^{-1}$  as sets of ordered pairs. Determine also The domain of  $R^{-1}$  The range of R.

82. Find the inverse relation  $R^{-1}$  in the following case:  $R: \{(1, 2), (1, 3), (2, 3), (3, 2), (5, 6)\}$ 



83. Find the inverse relation  $R^{-1}$  in the following case: $R:\{(x,y):x,y\in N,\;x+2y=8\}$ 

Watch Video Solution

**84.** If R is a relation on a finite set having n elements, then the number of

relations on A is  $a.\ 2^n$  b.  $2^n\ \hat{}\ 2$  c.  $n^2$  d.  $n^n$ 

## Watch Video Solution

**85.** Find the inverse relation  $R^{-1}$  in the following case: R is a relation from  $\{11, 12, 13\} \rightarrow \{8, 10, 12\}$  defined by y = x - 3.



**86.** Write the following relation as the sets of ordered pair: A relation R on the set  $\{1,2,3,4,5,6,7\}$  defined by  $(x,y)\in R \Leftrightarrow x$  is  $\{1,2,3,4,5,6,7\}$  defined by  $(x,y)\in R \Leftrightarrow x$  is relatively prime to y.

Watch Video Solution

87. Write the following relation as the set of ordered pair: A relation R on the set  $\{1,2,3,4,5,6,7\}$  defined by  $(x,y)\in R\Leftrightarrow x$  is relatively prime to y.

> Watch Video Solution

88. Write the following relation as the set of ordered pair: A relation R on

the set  $\{0, 1, 2, ; 10\}$  defined by 2x + 3y = 12.

**89.** Write the following relation as the set of ordered pair: A relation R from a set  $A=\{5,6,7,8\}$  to the set  $B=\{10,12,15,16,18\}$  defined by  $(x,y)\in R\Leftrightarrow x$  divides y.

## Watch Video Solution

**90.** Let  $A = \{3, 5\}$  and  $B = \{7, 11\}$ . Let

 $R = \{(a,b) \colon a \in A, \; b \in b, \; a-b \; ext{is odd} \}$  . Show that R is an empty

relation from A and B.

Watch Video Solution

91. Let  $A=\{1,2]and\ B=\{3,4\}$  . Find the total number of relations

from A into B.

92. Determine the domain and range of the relation R defined by: $R=\{(x,x+5)\colon x\in\{10,1,2,3,4,5\}$ 



**93.** Determine the domain and range of the relation R defined by:

$$R = \{(a,b) : b = |a-1|, \; a \in Z \: and \: |a| \leq 3\}$$

Watch Video Solution

**94.** Let  $A = \{x, \ y, z\} nd$   $B = \{a, b\}$  . Find the total number of relations

from A into B.

## Watch Video Solution

95. Let R be a relation from N to N defined by  $R = \Big\{(a,b): a\dot{b} \in N$  and  $a = b^2$ ). Are the following true?(i)  $(a,a) \in R, f ext{ or } alla \in N$ (ii)

 $(a,b)\in R, implies(b,a)\in R$ (iii) `(a ,



96. Let  $A = \{1, 2, 3; 14\}$ . Define a relation on a set A by  $R = \{(x, y): 3x - y = 0. where x, y \in A\}$ . Depict this relationship using an arrow diagram. Write down its domain, co-domain and range.

## Watch Video Solution

97. Define a relation R on the set N of natural numbers by  $R = \{(x, y) : y = x + 5, x \text{ is a natural number less than } 4, x, y \in N\}$ . Depict this relationship using i. roster form ii. . Write down the domain and range or R.

**98.** Let  $A = \{1, 2, 3, 5\}B = \{2, 4, 9\}$  .Define a relation. from A to B by  $R = \{the \ d \Leftrightarrow erence \ between \ is \ odd, x \ in A, y \ in B\}`$ . Write it in Roster from

**99.** Write the relation  $R = ig\{ (x, x^3) : x ext{ is a prime number less than 10} ig\}$  in

roster form.

Watch Video Solution

100. Let  $A = \{1, 2, 3, 4, 5, 6\}$ . Let R be a relation on A defined by

 $R = \{(a, b) : a, b \in A, b \text{ is exactly divisible by a}\}$  Write R is roster form

Find the domain of R Find the range of R.

**101.** Figure 2.15 shows a relationship between the sets P and Q. Write this relation in Set builder form ii. Roster form What is its domain and range?

102. Let R be the relation on Z defined by  $R = \{(a, b) : a, b \in Z, a - b \text{ is } an \text{ integer}\}$ . Find the domain and range of R.

Watch Video Solution

relation N imes N defined 103. Let Rbe а on by  $(a,b) \ R(c,d) \Leftrightarrow a+d=b+c \ f \ ext{or} \ \ all \ (a,b), \ (c,d) \in N imes N \quad ext{show}$  $(i) \ (a,b) R \ (a,b) \ f \ ext{or} \ \ all \ (a,b) \in N imes N$ that:  $(ii) \ (a,b)R(c,d) \Rightarrow (c,d)R(a,b)f \ ext{or} \ \ all \ (a,b), \ (c,d) \in N imes N$  $(iii) (a, b) R (c, d) and (c, d) R(e, f) \Rightarrow (a, b) R(e, f)$ for all  $(a,b), (c,d), (e,f) \in N \times N$ 

**104.** If 
$$A = \{1, 2, 4\}, B = \{2, 4, 5\}$$
 and  $C = \{2, 5\},$  write  $(A - C) \times (B - C)$ .

Watch Video Solution

105. If n(A)=3, n(B)=4, then write n(A imes A imes B) .

Watch Video Solution

106. If R is a relation defined on the set Z of integers by the rule  $(x,y)\in R\Leftrightarrow x^2+y^2=9,$  then write domain of R.

## Watch Video Solution

107. If  $R = ig\{(x,y) : x, y \in Z, \ x^2 + y^2 \leq 4ig\}$  is a relation defined on the set Z of integers, then write domain of R.

108. If R is a relation from set  $A=\{11,12,13\}$  to set  $B=\{8,10,12\}$ 

defined by  $y=x-3,\,$  then write  $R^{-1}\cdot$ 

 $\mathsf{A}.\{(8,11),(10,13)\}$ 

 $\mathsf{B.}\left\{(8,11),\,(10,12)\right\}$ 

 $C. \{(10, 13), (10, 11)\}$ 

D. none of these

ANSWER: A

Watch Video Solution

109.

Let

$$R = \{(x,y)\!:\! x,y\in Z,\; y=2x-4\}$$
  $If(a,\;-2) \; and \; ig(4,b^2ig)\in R,\;$  then

write the values of a and b.



**110.** If  $A = \{1, 3, 5\}$  and  $B = \{2, 4\}$  list the elements of

 $R, \quad ext{if} \quad R=\{(x,y)\!:\! x,y\in A imes B \ and \ x>y\}.$ 

#### Watch Video Solution

111. If  $R = \{(x, y) : x, y \in W, 2x + y = 8\}$  , then write the domain and range of R

Watch Video Solution

**112.** Let A and B be two sets such that n(A) = 3 and n(B) = 2. If

(x, 1), (y, 2), (z, 1) are in A imes B, write A and B.

Watch Video Solution

**113.** If  $A = \{1, 2, 3\}$ ,  $B = \{1, 4, 6, 9]$  and R is a relation from A to B defined by x is greater than y. The range of R is

 $A.\{1, 4, 6, 9\}$ 

 ${\rm B.}\,\{4,\,6,\,9\}$ 

**C**. {1}

D. none of these

ANSWER: C

Watch Video Solution

114. If  $R = \left\{(x,y): x, y \in Z, x^2 + y^2 \le 4 \right\}$  is a relation on Z, then domain of R is  $\{0,1,2\}$  b.  $\{0,\ -1,\ -2\}$  c.  $\{-2,\ -1,0,1,2\}$  d. none of these

Watch Video Solution

115. A relation arphi from  $C \ o \ R$  is defined by  $x arphi y \Leftrightarrow |x| = y$ . Which one

is correct? (2+3i)arphi 13 b. 3arphi(-3) c. (1+i)arphi 2 d. iarphi 1

116. Let R be a relationon N defined by x+2y=8. The domain of R is (a)  $\{2,4,8\}$  b.  $\{2,4,6,8\}$  c.  $\{2,4,6\}$  d. (1,2,3,4)



117. Let R be a relation from a set  $A \rightarrow a$  set B, then  $R = A \cup B$  b.

 $R = A \cap B$  c.  $R \subseteq A imes B$  d.  $R \subseteq B imes A$ 

Watch Video Solution

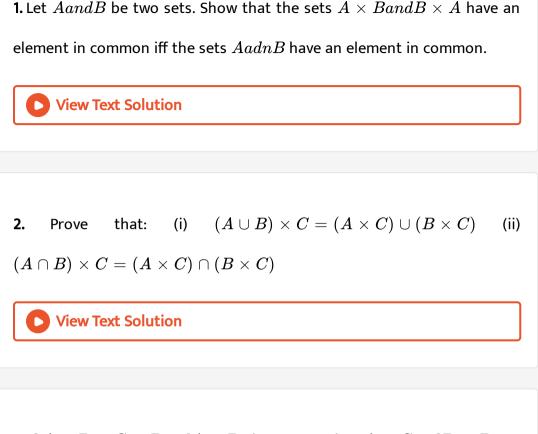
**118.** If R is a relation from a finite set A having m elements to a finite set B

having n elements then the number of relations from A to B is

a.  $2^{mn}$  b.  $2^{mn}-1$  c.  $n^m$  d.  $m^n$ 



#### Others



**3.** If  $A imes B \subseteq C imes DandA imes B 
eq arphi, ext{ prove that } A \subseteq CandB \subseteq D$  .

View Text Solution

4. Let  $A = \{1, 2, 3\}, B = \{a, b, c, d\}$  be two sets and let  $R = \{(1, a), (1, c), (2, d), (2, c)\}$  be a relation from A to B. Then  $R^{-1} = \{(a, 1), (c, 1), (d, 2), (c, 2)\}$  is a relation from B to A. 5. Let a relation  $R_1$  on the set R of all real numbers be defined as  $(a,b)\in R_1\Leftrightarrow 1+ab>0$  for all  $a,b\in R$ . Show that:  $(i)\ (a,a)\in R_1 orall\ a\in R\ (ii)\ (a,b)\in R_1 orall\ a,b\in R$ 

View Text Solution

6. If  $R = \{(2,1), (4,7), (1, -2).\}$  , then writhe the linear relation

between the components of the ordered pairs of the relation  $R_{\cdot}$ 

## View Text Solution

7. Let  $A = \{1, 2, 3\}, B = \{1, 3, 5\}$ . If relation R from A to B is given by  $R = \{(1, 3), (2, 5), (3, 3)\}$ . Then  $R^{-1}$  is a.  $\{(3, 3), (3, 1), (5, 2)\}$  b. c.  $\{(1, 3), (5, 2)\}$  d. none of these

**View Text Solution**