

Relations-and-Functions - Class XI

Related Questions with Solutions

Questions

Question: 01

If $A = \{2, 8\}$ and $B = \{3, 4, 5\}$, find number of elements in $A \times B$ and $B \times A$.

A. 12, 12

B. 6, 12

C. 12, 6

D. 6, 6

Solutions

Solution: 01

$$A = \{2, 8\}, B = \{3, 4, 5\}$$

$$A \times B = \{(2, 3), (2, 4), (2, 5), (8, 3), (8, 4), (8, 5)\} \text{ clearly } A \times B \neq B \times A$$

$$B \times A = \{(3, 2), (3, 8), (4, 2), (4, 8), (5, 2), (5, 8)\}$$

$$\text{although } n(A \times B) = n(B \times A)$$

Correct Options

Answer:01

Correct Options: D