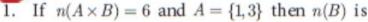
Multiple choice questions



(1)1

(2) 2

(3)3

(4)6



(1)8

(2) 20

(3) 12

(4) 16

3. If $A = \{1, 2\}$, $B = \{1, 2, 3, 4\}$, $C = \{5, 6\}$ and $D = \{5, 6, 7, 8\}$ then state which of the following statement is true.

(1) $(A \times C) \subset (B \times D)$

(2) $(B \times D) \subset (A \times C)$

 $(3)(A \times B) \subset (A \times D)$

(4) $(D \times A) \subset (B \times A)$

4. If there are 1024 relations from a set $A = \{1, 2, 3, 4, 5\}$ to a set B, then the number of elements in B is

(1)3

(2)2

(3)4

(4)8

5. The range of the relation $R = \{(x, x^2) \mid x \text{ is a prime number less than } 13\}$ is

- (1) {2,3,5,7}
- (2) {2,3,5,7,11}
- $(3) \{4,9,25,49,121\}$ $(4) \{1,4,9,25,49,121\}$

6. If the ordered pairs (a+2,4) and (5,2a+b) are equal then (a,b) is

- (1)(2,-2)
- (2)(5,1)
- (3)(2,3)
- (4)(3,-2)

7. Let n(A) = m and n(B) = n then the total number of non-empty relations that can be defined from A to B is

- (1) mn
- (2) n^{m}
- $(3) 2^{mn} 1$
- (4) 2mn

8. If $\{(a,8),(6,b)\}$ represents an identity function, then the value of a and b are respectively

- (1)(8,6)
- (2)(8,8)
- (3)(6,8)
- (4)(6,6)

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