

Hw
21.12.2021

Exercise 10 (D)

1. (i) \mathbb{Z}_n Finite
- (ii) Finite
- (iii) Infinite
- (iv) Infinite

2. (i) Not empty
- (ii) Not empty
- (iii) empty
- (iv) empty
- (v) Not empty

3. (i) Equal
- (ii) equivalent
- (iii) equal
- (iv) equivalent

- 4. (i) Infinite
- (ii) Infinite
- (iii) Infinite
- (iv) Finite
- (v) Infinite
- (vi) Finite
- (vii) Finite
- (viii) Infinite
- (ix) Infinite
- (x) Infinite

- 5. (i) Not empty
- (ii) Not empty
- (iii) empty
- (iv) Not empty
- (v) Not empty
- (vi) empty
- (vii) Not empty

- 6. (i) Equivalent
- (ii) Equal
- (iii) equal
- (iv) equal
- (v) Equal
- (vi) equivalent

- 7. (i) Infinite
- (ii) Infinite
- (iii) Finite
- (iv) Finite
- (v) Finite
- (vi) Finite

- 8. (i) False
- (ii) False
- (iii) true
- (iv) true
- (v) true
- (vi) False
- (vii) true
- (viii) False

9. (i) No disjoint because
 (ii) no one can be given
 below 15 and above
 above 15.
 (iii) overlapping sets, as
 boys above 27 years
 are also above 20
 years.

(ii) overlapping sets because
 in both of them
 50 to 60 have common

(iv) overlapping as the
 students in IX, I C
 are common.

- (1) overlapping, maximum number of letters is common to both sets.
- (2) Disjoint no letter is common.

9-07-2021

EX-10 (E) (only one)

- 1. (i) $A(n) = 4$
- (ii) $A(n) = 6$
- (iii) 0
- (iv) 30
- (v) 4
- (vi) 4

- 2. (i) 9
- (ii) 4
- (iii) 4
- (iv) 0

- 3. (i) False; $n(A) = 1$
- (ii) False; $n(\emptyset) = 0$
- (iii) True
- (iv) False; $n(B) = 4$