

Self - Exercise 5 (DBM2033 Discrete Mathematics)

1. $A = \{31, 32, 33, 34, 35, 36, 37, 38, 39\}$ ✓

$B = \{24, 28, 32, 36, 40, 44, 48\}$ ✓

a) $A - B$

$A - B = \{31, 33, 34, 35, 37, 38, 39\}$ ✓

b) $B - A$

$B - A = \{24, 28, 40, 44, 48\}$ ✓

2.

$n(A) = 5$

$n(B) = 10$

$n(C) = 5$

a) $n(A) = n(C)$

$5 = 5$

∴ TRUE ✓

b) $n(A) = n(B)$

$5 = 10$

∴ FALSE ✓

c) $n(B) - n(C) = n(A)$

$10 - 5 = 5$

∴ TRUE ✓

d) $n(B) = 2 \cdot n(C)$

$10 = 2 \cdot 5$

∴ TRUE ✓

3.

a) A

$A = \{F, O, L, L, O, W\}$ ✓

b) $n(A)$

$n(A) = 6$ ✓

c) Number of subsets of A

$= 2^n$

$= 2^6$

$= 64$ ✓

NO:

A proper subset of a set A
is a subset of A

DATE:

d) number of proper subset

$$2^n - 1$$

$$= 64 - 1$$

$$= 63$$

that is not equal to A.