

# Worksheet 6

DBM 2033.

1(a)  $A = \{1, 2, 3, 4, 6, 12\}$

(b) A is a set of factors of 12.  $A = \{x : x \text{ is a factor of } 12\}$

For example,  $1 \times 12 = 12$

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

Thus,  $A = \{1, 2, 3, 4, 6, 12\}$

this is listing.

this is by description.

2(a)  $x \subset y$  is ~~true~~ False.

$$x = \{3, 6, 9, 12, 15, 18, \dots\}$$

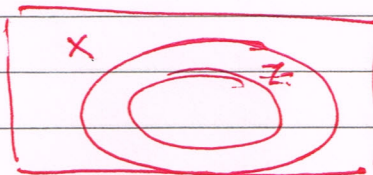
$$y = \{6, 12, 18, \dots\}$$

(b)  $x \subset z$  is ~~true~~ False.

$$z = \{9, 18, 27, \dots\}$$

(c)  $z \subset y$  is false ✓

(d)  $z \subset x$  is ~~false~~ True.



3. ~~C.~~ The set of factors of 7.  $\mathbb{D} \rightarrow$  because  $\pi$  is an irrational number.

4(a)  $S = \{a, b, c, d, e\}$  has ~~3~~ proper subsets of  $(33)$  ~~X~~ 31

(b) Set  $S = \{a, b, c, d, e\}$  has 5 elements.

Therefore, the cardinal number of set  $S = 5$ .

So, it is denoted as  $n(S) = 5$ .