Sets Ex 1.2 Q1(ix)

In Roster form, we describe a set by listing its elements, reparated by commas and the elements are written within braces $\{\ \}$. If a set has infinitely many elements, them comma is followed by ..., where the dots stand for 'and so on'.

The distinct letters are B,E,T,R.

Hence the set can be written as

$$\{B, E, T, R\}$$

Sets Ex 1.2 Q2(i)

In set Builder form, a set is described by some characterizing property $P(x)$ of its elements x.

In this case a set can be described as $\{x : P(x) \text{hold}\}$ or $\{x | P(x) \text{holds}\}$ which is read as 'the set of all x such that $P(x)$ holds'.

The symbols ':' or 'I' is read as 'such that'.

So, the above set A in Set-Builder form may be written as

$$A = \{x \in N : x < 7\}$$

i.e A is the set of natural numbers x such that x is less than 7.

or

$$A = \{x \in N | 1 \le x \le 6\},$$

i.e A is the set of natural numbers x such that x is greater than or equal 1 and less than or equal to 6.

Sets Ex 1.2 Q2(ii)

In set Builder form, a set is described by some characterizing property $P(x)$ of its elements x.

In this case a set can be described as $\{x : P(x) \text{hold}\}$ or $\{x | P(x) \text{holds}\}$ which is read as 'the set of all x such that $P(x)$ holds'.

The symbols ':' or 'I' is read as 'such that'.

$$B = \left\{x : x = \frac{1}{n}, n \in N\right\}$$

i.e B is the set of all those x such that $x = \frac{1}{n}$, where $n \in N$

Sets Ex 1.2 Q2(iii)

In set Builder form, *a* set is described by some characterizing property $P(x)$ of its elements x.

In this case a set can be described as $\{x : P(x) \text{hold}\}$ or $\{x | P(x) \text{holds}\}$ which is read as 'the set of all x such that $P(x)$ holds'.

The symbols ':' or 'I' is read as 'such that'.

$C = \{x : x = 3k,\ k \in Z^+, \text{the set of positive integers}\}$,

i.e C is the set of multiples of 3 including 0

********** END **********