Sets Ex 1.2 Q2(iv)

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'.

$D = \{x \in N : 9 < x < 16\}$,

i.e D is the set of natural numbers which are more than 9 but less than 16.

Sets Ex 1.2 Q2(v)

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'.

$E = \{x \in Z : -1 < x < 1\}$

or

$E = \{x \in Z : x = 0\}$

Sets Ex 1.2 Q2(vi)

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'.

As $1^2 = 1$

$2^2 = 4$

$3^2 = 9$

:

:

$10^2 = 100$

$\therefore$ The above set may be described as

$\{x^2 : x \in N \ \& \ 1 \leq x \leq 10\}$

Sets Ex 1.2 Q2(vii)

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'.

The given set can be described as
$\{x : x = 2n, n \in N\}$ $(\because 2, 4, 6, \ldots \text{are multiples of} 2)$

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