

Homework

Exercise 10B

1. i) wrong, $5 \notin B$

ii) correct

iii) correct

iv) wrong, $9 \notin B$

v) correct

vi) correct

2. i) False

ii) True

iii) False

iv) True

v) True

vi) True

vii) True

Exercise 10C

1. i) Roster Form - $\{1, 2, 3, 4, 6, 8, 12, 24\}$

Set-builder form - $\{x : x \text{ is a natural number that divides } 24 \text{ completely}\}$

ii) Roster form - $\{21, 23, 25, 27, 29, 31, 33\}$

Set-Builder form - $\{x : x \text{ is an odd } \cancel{\text{natural}} \text{ number between } 20 \text{ and } 35\}$

iii) Roster form - $\{e, a, l, u, t, a\}$

Set-Builder form - $\{x : x \text{ is a letter } \textsuperscript{\text{used}} \text{ in the word 'ALCUTIA'}\}$

iv) Roster form - $\{\text{January, February, March, April, May}\}$

Set-Builder form - $\{x : x \text{ is a } \textsuperscript{\text{name}} \text{ of the first five months of a year}\}$

v) ~~ii)~~ Roster form: $\{16, 25, 36, 49, 64, 81\}$
Set-Builder form: $\{x: x \text{ is a two-digit number which is a perfect square as well}\}$

5. i) $\{5, 15, 25, 35\}$

ii) $\{18, 24, 30\}$

iii) $\{\text{Friday, Saturday, Sunday}\}$

iv) $\{\text{September, October, November, December}\}$