

$$(b) (A \cap C) = \{1, 2, \dots, 10\} \cap \{2, 4, 6, \dots, 20\} \\ = \{2, 4, 6, 8, 10\}$$

$$(c) (A \cup B) = \{1, 2, 3, \dots, 20\}$$

$$(A \cup B) \setminus C = \{1, 2, 3, \dots, 20\} \setminus \{2, 4, 6, \dots, 20\} \\ = \{1, 3, 5, 7, 9, 11, 13, 15, 17, 19\}$$

$$(d) (A \cap B) = \{10\}$$

$$(A \cap B) \setminus C = \{10\} \setminus \{2, 4, 6, \dots, 20\} \\ = \{ \}$$

Answer no: 10

Given that,

$$A \setminus B = \{1, 5, 7, 8\}$$

$$B \setminus A = \{2, 10\}$$

$$A \cap B = \{3, 6, 9\}$$

For, $A \setminus B$ where elements are in A but not in B

$B \setminus A$ where elements are in B but not in A

$A \cap B$ where elements in both A and B