

1. Is the given relation a function or not? Give reasons for your answer.
 - a. $H = \{(4, 6), (10, 11), (-11, 7), (4, 11)\}$
 - b. $F = \{(x, x) \mid x \text{ is a real number}\}$
 - c. $G = \{(y, -y) \mid y \text{ is a real number}\}$
 - d. $A = \{(x, 5) \mid x \in \mathbb{R}\}$
 - e. $B = \{(a, \frac{1}{a}) \mid a \text{ is a positive integer}\}$
 - f. $A = \{(4, x) \mid x \in \mathbb{R}\}$
2. If $R = \{(x, y) \mid y = 2x + 7, \text{ where } x \in \mathbb{R} \text{ and } -5 \leq x \leq 5\}$ is a Relation. Find out whether relation R is a function or not.
3. If $R = \{(x, |x|) \mid x \text{ is a real number}\}$. Then find domain and range of this relation and also, find out whether it is a relation or not.