

Exercise 39

Inequalities Write each statement in terms of inequalities.

- (a) x is positive.
- (b) t is less than 4.
- (c) a is greater than or equal to π .
- (d) x is less than $\frac{1}{3}$ and is greater than -5 .
- (e) The distance from p to 3 is at most 5.

Solution

x is positive: $x > 0$.

t is less than 4: $t < 4$.

a is greater than or equal to π : $a \geq \pi$.

x is less than $\frac{1}{3}$ and is greater than -5 : $-5 < x < \frac{1}{3}$.

The distance from p to 3 is at most 5: $d(p, 3) \leq 5$ or $|3 - p| \leq 5$ or $-5 \leq 3 - p \leq 5$.