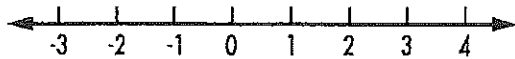


# Inequalities on the number line

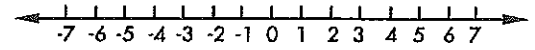
## Exercise

1 Draw the given set on each of the number lines shown.

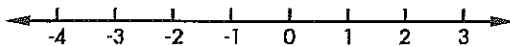
a  $\{x: x > 2\}$



b  $\{x: x < 3\}$



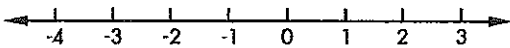
c  $\{x: x \geq -2\}$



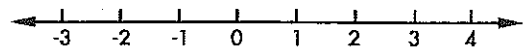
d  $\{x: x \leq 0\}$



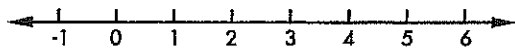
e  $\{x: -3 < x < 2\}$



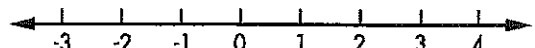
f  $\{x: -1 \leq x \leq 2\}$



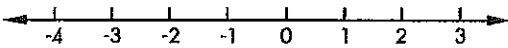
g  $\{x: 0 < x \leq 5\}$



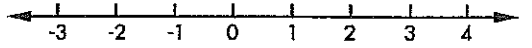
h  $\{x: x \leq -1\}$



i  $\{x: -3 \leq x < 1\}$

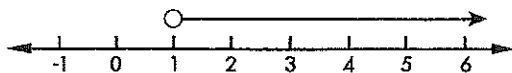


j  $\{x: x > 0\}$



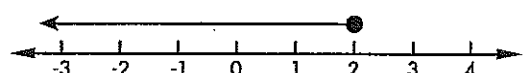
2 What set is shown on each of the following number lines?

a



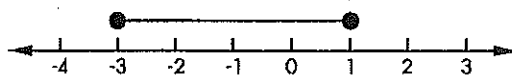
$\{x: x \dots\dots\dots\}$

b



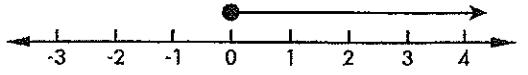
$\{x: \dots\dots\dots\}$

c



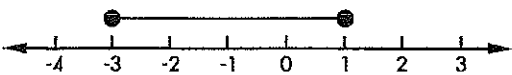
$\{x: \dots\dots \leq x \leq \dots\dots\}$

d



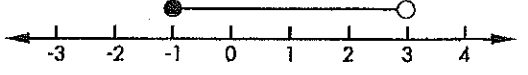
$\{x: \dots\dots\dots\}$

e



$\{x: \dots\dots\dots\}$

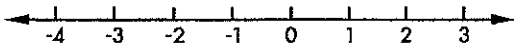
f



$\{x: \dots\dots\dots\}$

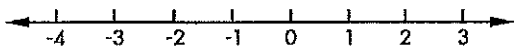
1.  $x - 5 > 1$

2.  $4n + 16 \leq 24$



3.  $2n + 4 \geq 10$

4.  $5(x + 4) \geq 25$



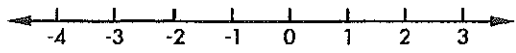
5.  $3(n + 5) - 6 > 24$

6.  $\frac{x}{2} + 7 \geq 12$

7.  $\frac{n + 5}{3} \geq 4$

8.  $\frac{n + 6}{2} + 15 < 20$

9.  $3(2n+4) > 48$



10.  $\frac{3(n+7)}{5} - 2 \leq 4$

11.  $6n - 3 < 15$

