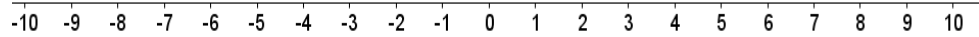


## Student Activity: To investigate simple inequalities

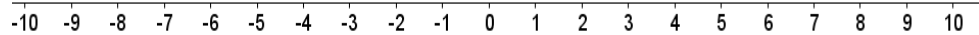
Use in connection with the Interactive file, 'Simple Inequalities', on the Student's CD.

1. Show the following inequalities on the following number line:

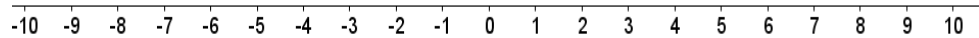
a.  $x < 2, x \in \mathbb{R}$ .



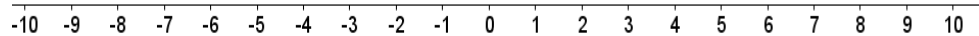
b.  $x > 3, x \in \mathbb{R}$ .



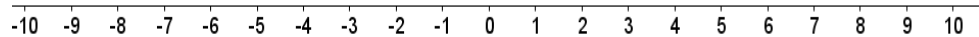
c.  $x \leq 4, x \in \mathbb{R}$ .



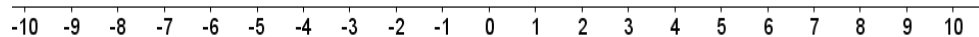
d.  $x \geq 5, x \in \mathbb{R}$ .



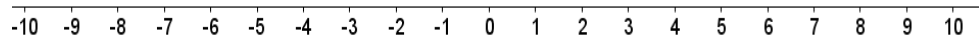
e.  $x \leq 2, x \in \mathbb{R}$ .



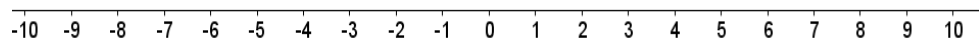
f.  $x > 0, x \in \mathbb{R}$ .



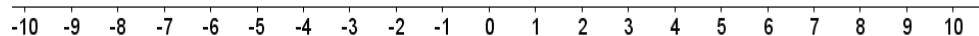
g.  $x < 0, x \in \mathbb{R}$ .



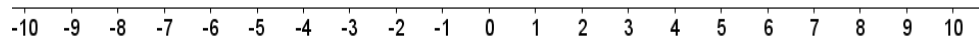
h.  $x > -2, x \in \mathbb{R}$ .



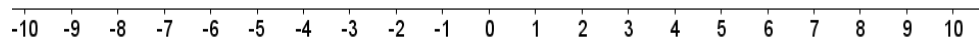
i.  $x < -4, x \in \mathbb{R}$ .



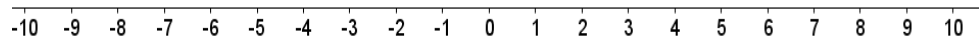
j.  $x \geq -2, x \in \mathbb{R}$ .



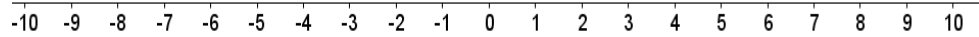
k.  $x \leq -1, x \in \mathbb{R}$ .



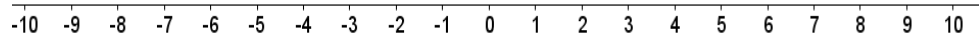
l.  $x < 2, x \in \mathbb{Z}$ . (Note this is not  $x \in \mathbb{R}$ .)



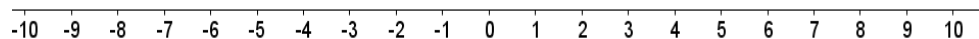
m.  $x > 3, x \in \mathbb{N}$ . (Note this is not  $x \in \mathbb{R}$ .)



n.  $x \leq 4, x \in \mathbb{N}$ . (Note this is not  $x \in \mathbb{R}$ .)

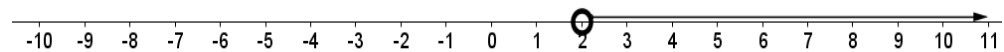


o.  $x \geq 5, x \in \mathbb{Z}$ . (Note this is not  $x \in \mathbb{R}$ .)

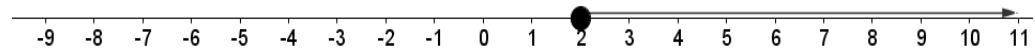


2. Which inequality does each in the following number represented, given  $x \in \mathbb{R}$ ?

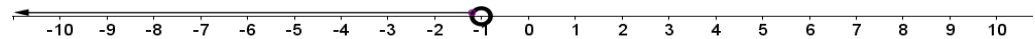
a.



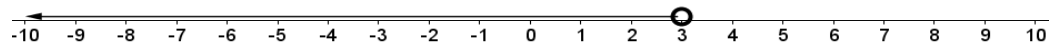
b.



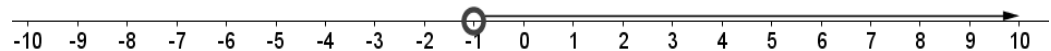
c.



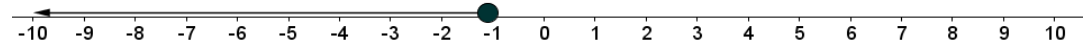
d.



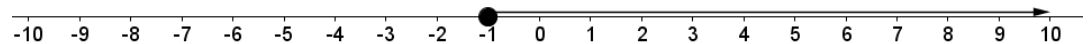
e.



f.



g.



h.



i.

