

Unit 4: Linear Inequalities

A: Representing Inequalities

greater than

$<$ less than

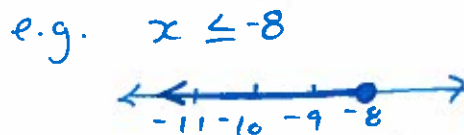
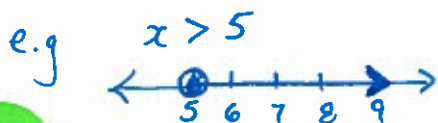
\geq greater than or equal to

\leq less than or equal to.

Graphically / Number Line

$>$
 $<$ use an open circle \circ .

\geq
 \leq use a closed circle \bullet .



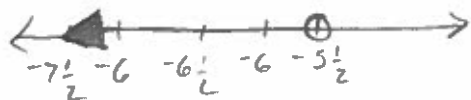
Examples:

1. Write a word statement Δ to express the meaning. and display the solution graphically.

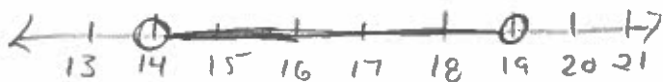
a) $y \geq 10$ y is greater than or equal to 10.



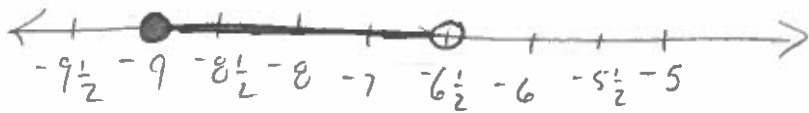
b) $y < -5\frac{1}{2}$



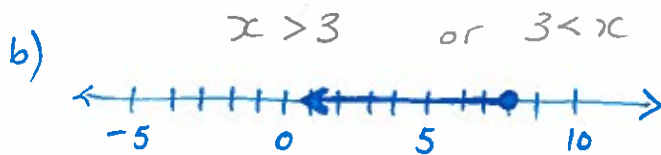
$x > 14$ and $x < 19$



d) $x < -6\frac{1}{2}$ and $x \geq -9$



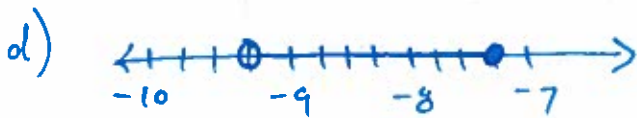
2. Represent the values shown below using inequalities.



$x \leq 8$ or $8 \geq x$



$x \geq 12$ and $x \leq 18$ * You must have both!



$x > -9\frac{1}{4}$ \therefore $x \leq -8\frac{3}{4}$ fractions unless asked otherwise.

Assignment Pg. 347 # 1-15