

Linear Inequality

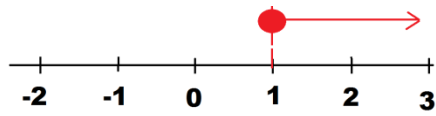


Diagram above shows $x \geq 1$

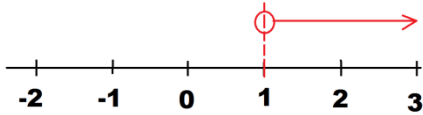


Diagram above shows $x > 1$

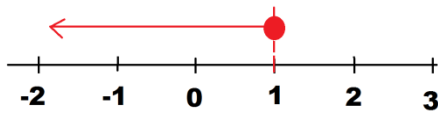


Diagram above shows $x \leq 1$

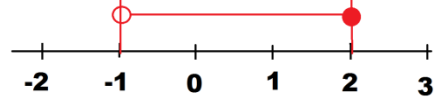


Diagram above shows $-1 < x \leq 2$

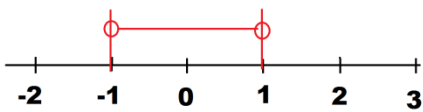
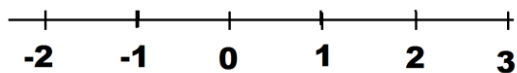


Diagram above shows $-1 < x < 1$

Exercises

Describe the line number given the inequality

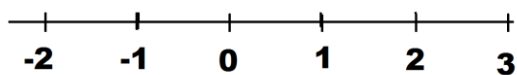
$$x \leq 3$$



Exercises

Describe the line number given the inequality

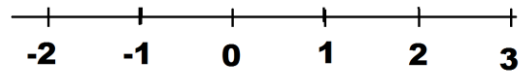
$$x \leq -2$$



Exercises

Describe the line number given the inequality

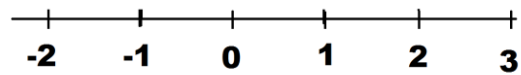
$$x \leq 0$$



Exercises

Describe the line number given the inequality

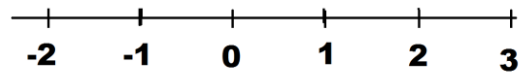
$$x \geq -2$$



Exercises

Describe the line number given the inequality

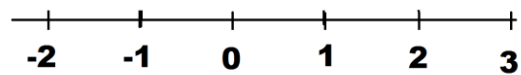
$$x > -2$$



Exercises

Describe the line number given the inequality

$$x > 0$$



Exercise

Solve the linear inequality given the diagram below. Draw the line graph below

1. $x - 2 < 5$

2. $x + 3 > -4$

3. $x + 5 \geq 3$

4. $x - 4 \leq -2$

5. $5x > 25$

6. $4x < -12$

7. $-3x \leq -15$

8. $-7x > 21$

HOTS Questions

Solve the following linear inequality

a) $5(2x + 1) \leq 25$

b) $5(2x - 1) \leq 2$

c) $2(3x + 4) \leq 2x + 1$

d) $-5(x + 3) \geq 2$

e) $3(2x - 7) \leq 5$

f) $-5(x + 3) \geq 2$

g) $3(2x - 7) \leq 5$

h) $5(2x + 1) + 2(2 - 3x) \geq 25$

Solve Linear inequality involving Fractions

a) $\frac{2+x}{3} \geq 3$

b) $\frac{2+3x}{3} \geq 2x + 4$

c) $\frac{2+4x}{2} \geq 3x$

d) $\frac{2+5x}{3} \geq 2 + 2x$

e) $\frac{2+5x}{3x} \leq 7$