

Inequalities



i. State whether the following inequalities are true or false:

- $4 > 3$
- $10 < 6$
- $-1 < -5$
- $8 \leq 8$
- $-1 \geq 0$
- $-10 < 0$
- $100 < 105$
- $-100 < -105$
- $-400 \geq 200$
- $0 \leq 0$

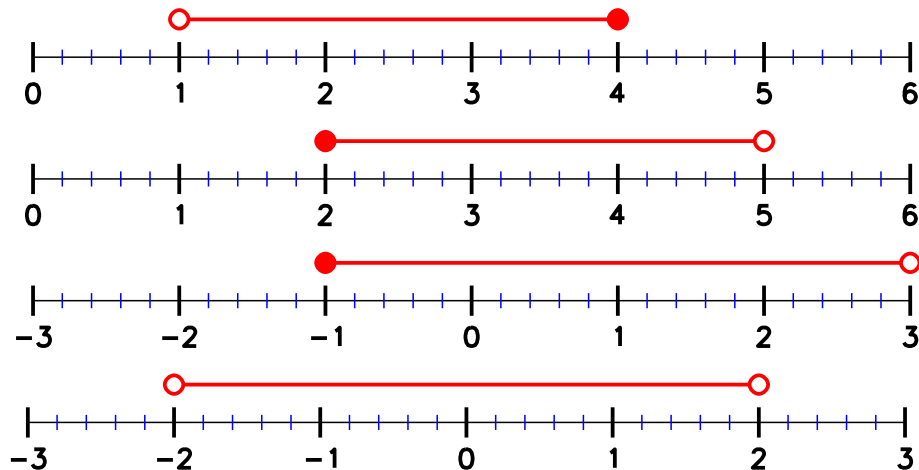
ii. Write out all the whole numbers p , which satisfies the following inequalities:

- $2 < p < 5$
- $1 \leq p < 4$
- $5 \geq p > 2$
- $-1 < p < 4$
- $-2 < p \leq 0$
- $-5 \leq p - 3 < 1$

iii. Solve the following inequalities:

- $4 > 2x$
- $3 < x + 2$
- $5x + 10 \leq 30$
- $6x + 8 \geq 20$
- $4x - 9 < 11$
- $8 + 5x - 4 \geq 44$
- $3x - 5 \leq 2x$
- $4x + 7 < 2x + 9$
- $6x - 4 > 2x + 10$
- $10x - 5 < 2x + 11$

iv. State the inequalities are shown on the number lines below:



v. Draw a set of axes with x and y ranging from -5 to 5 . Shade the region where $x \geq 2$ and $y \leq -1$.