Name: ……………………………………   Date: ………………..

1. Match each inequality with the correct number line.

Inequalities:	**Number lines**

$x < -1$
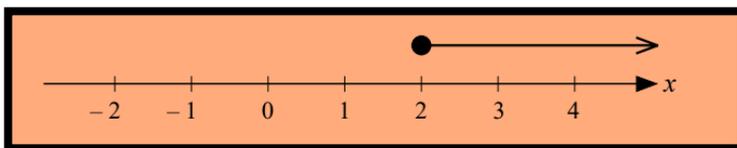
$-2 < x \leq 4$
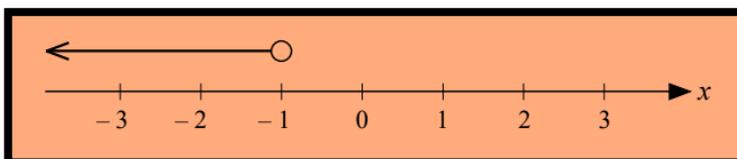
$x \geq 2$
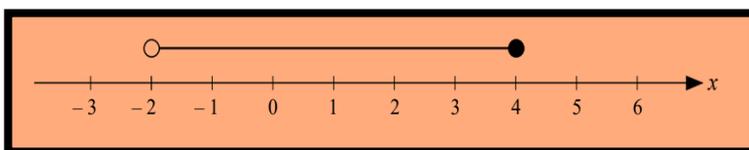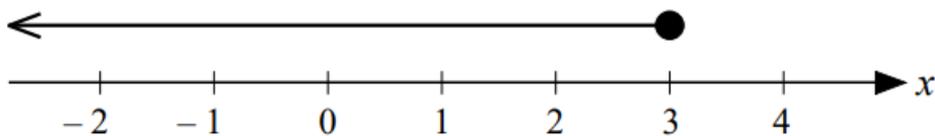

2. The inequality 5−x ≥ 2 has the solution x≤3.

A) True   B) False

3. Write an inequality to describe the region represented on each number line below:

a)

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b)

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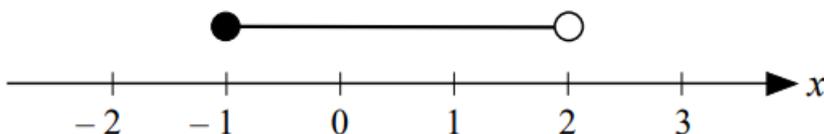
4. **Solve** the inequality and represent the solution on a number line:

$$3x-5<7$$

Show each step and **state** the solution set clearly.

5. A student claims that the solution to

$$2(3x-4)>4x+8 \quad \text{is} \quad x>8.$$

Verify whether the student's claim is correct. If incorrect, **explain** the error using mathematical reasoning and the correct solution.