

Inequalities Describe Many Solutions



Use the matching sheet ID when checking answers.

Use the material to work through each task. Show the requested response.

1. Solve $x + 3 > 8$.

Answer: $x > 5$

2. Is $x = 5$ a solution to $x + 3 > 8$?

Answer: no

3. Solve $-2x < 6$.

Answer: $x > -3$

4. Name one integer solution to $x > -3$.

Look for:

- An integer greater than -3.

One possible response: 0.

5. Show $x \leq 2$ on a number line.

Look for:

- Includes 2.
- Represents all smaller values.

One possible response: Closed point at 2, shading left.

6. Explain why $-2x < 6$ gives $x > -3$.

Look for:

- Explains the reversal; checking an example supports the answer.

One possible response: Division by -2 reverses the order.

Open responses use criteria and an illustrative response. Other well-supported responses can be acceptable.