

1. Is (1, 1) in the solution of $y > x - 2$ AND $y < x + 3$?

$1 > -1$ yes; $1 < 4$ yes

Answer: Yes

2. Is (5, 0) in $y > x - 2$ AND $y < x + 3$?

$0 > 3$? No

Answer: No

3. $y \leq 2x + 1$: solid or dashed? Shade which side?

Solid; test (0,0): $0 \leq 1$

Answer: solid, origin side

4. For $y \geq x$ and $y \leq 4$: is (2, 3) in S?

$3 \geq 2$ yes; $3 \leq 4$ yes

Answer: Yes

5. Graph $y > x$ and $y > -x$. Which quadrant is fully in S?

Above both lines

Answer: top (quadrant I-II wedge)

6. Name one point in S for: $y < 3$ and $x \geq 1$.

Any $x \geq 1$ with $y < 3$

Answer: e.g., (2, 0)

7. Why must S satisfy BOTH inequalities?

A system is an AND

Answer: overlap only

8. For $y \leq -x + 6$ and $y \geq 2$: give two points in S and one not in S.

Between the lines

Answer: in: (1,2),(2,3); out: (0,7)

9. Graph $y \geq x - 1$ and $y < -2x + 5$, label S, and test (0, 3). (Trainer echo!) ★ challenge

$3 \geq -1$ yes; $3 < 5$ yes

Answer: (0,3) is in S

10. Write a system whose solution region is: above $y = x$ AND below $y = x + 4$, then name a point in it. ★ challenge

Between two parallel lines

Answer: $y > x$, $y < x + 4$; e.g., (0, 2)