

Name: _____

Date: _____

Graph BOTH, shade each; the solution set S is the OVERLAP. Test a point to be sure. Last two are challenge problems!

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

show your work

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

show your work

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

show your work

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

show your work

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

show your work

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

show your work

7. Why must S satisfy BOTH inequalities?

show your work

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

show your work

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

show your work

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

show your work