

Name: _____

Date: _____

'At least' means $\geq$, 'at most / no more than' means $\leq$. Two conditions = two inequalities. Last two are challenge problems!

1. Translate: 'x and y together total at most 14 hours.'

show your work

2. Translate: 'earn at least \$120 at \$6/hr (x) and \$12/hr (y).'

show your work

3. Snacks \$3 (s), drinks \$2 (d), budget at most \$18, need at least 4 drinks.

show your work

4. Can $s = 2$, $d = 5$ work in the system above?

show your work

5. Can $s = 4$, $d = 4$ work?

show your work

6. A club sells shirts (\$10) and hats (\$6), wants at least \$300, can make at most 40 items.

show your work

7. In that system: does $s = 25$, $h = 10$ work?

show your work

8. Why do real problems often also need $x \geq 0$ and $y \geq 0$?

show your work

9. Babysitting \$6/hr (x), tutoring \$12/hr (y): at least \$120, at most 14 hours total. Write the system and test (10, 5). (Trainer echo - June 2025 Q35!) ★ CHALLENGE

show your work

10. For that same system, find a combo that DOES satisfy both, and explain your check. ★ CHALLENGE

show your work