

Name: _____

Date: _____

You may multiply an equation by a number, or ADD the two equations - the solution does not change. Last two are challenge problems.

1. Multiply $x + y = 5$ by 3. Write the new equation.

show your work

2. Does $(2, 3)$ solve both $x + y = 5$ and $3x + 3y = 15$?

show your work

3. Add the equations: $x + y = 8$ and $x - y = 2$.

show your work

4. From $2x = 10$ above, finish the system.

show your work

5. Multiply $2x + y = 7$ by -2 .

show your work

6. What multiplier makes the y's cancel in: $3x + 2y = 12$ and $x - y = 1$?

show your work

7. Add: $4x + 2y = 14$ and $3x - 2y = 7$.
Then solve fully.

show your work

8. Why is adding two true equations allowed?

show your work

9. Show $(4, 1)$ solves $x + 2y = 6$ AND the sum of $[x + 2y = 6] + [2x - y = 7]$. ★ CHALLENGE

show your work

10. Build a NEW equation with the same solution as $x + y = 5$ by multiplying by 4, then adding $x - y = 3$. Verify with $(4, 1)$. ★ CHALLENGE

show your work