Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_\_\_\_\_

6.4 Shirts and Caps Again: Solving Systems with *y* = *mx* + *b*

**LT 6.4a** I can solve a system of equations by combining two equations into a single equation and solving for one variable.

**LT 6.4b** I can use symbolic methods to solve a system of equations.

A. Nyla and Jimfa have listed two different strategies for converting from standard form to slope-intercept form. Check both of their strategies below.



1. Do you agree with Nyla’s reasoning? If not, explain why. If so, solve the system using her method (find *s*).
2. Do you agree with Jimfa’s reasoning? If not, explain why. If so, solve the system using his method (find *s*).
3. How many shirts and caps did the class sell? Explain your reasoning.

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B. Use symbolic methods to find values of *x* and *y* that satisfy each system. Check your solution by substituting the values into the equations and showing that the resulting statements are true.

1. *y* = 1.5*x* – 0.4 *y* = 0.3*x* + 5

2. *x* + *y* = 3 *x – y* = -5

3. 3*x* – *y* = 3 *x* + *y* = 14

4. *x* + 6*y* = 15 -*x +* 4*y* = 5

5. *x* – *y* = -5 -2*x +* 2*y* = 10