Station 1: Practice Problems

$$y = 6x - 11$$
$$-2x - 3y = -7$$

$$-3x + 3y = 4$$
$$-x + y = 3$$

$$y = 5x - 7$$
$$-3x - 2y = -12$$

$$x + 3y = 1$$
$$-3x - 3y = -15$$

LIVEWORKSHEETS

Station 2: Word Problems

There are a total of 85 maple and walnut trees on a piece of land. There are 13 more maple trees than walnut trees. How many maple and walnut trees are on this piece of land?

Keegan bought 5 T-shirts and 2 pairs of shorts for $49.50. Each pair of shorts, s, cost twice as much as each T-shirt, t.

A community center is hosting presentations of a puppet show. If the adult's ticket is for $10, and the child's ticket is for $5. For the Saturday matinee show, 480 tickets have been sold for total proceeds of $305

Justin goes to a store to buy jeans and T-shirts. The jeans cost $40 each and the T-shirts cost $20 each. If Justin spends $100 on 4 items, how many pairs of jeans and how many T-shirts did he buy?

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Station 3: Error Analysis

Given the system:

$$y = 2x + 1, \quad 3x + y = 7$$

Incorrect solution:

$$3x + (2x + 1) = 7$$

$$3x + 2x + 1 = 7$$

$$5x = 7$$

Find the mistake and correct it.

$$5x + y = 8$$
$$2x + y = 5$$

Two students, Marc and Loise, used the elimination method to solve this system.

- **Marc's Solution**: He subtracted the equations to get $3x = 3$, found $x = 1$, and then $y = 3$.
- **Loise's Solution**: She Added the equations to get $7x + 2y = 13$ and found $x = 3, y = -1$.

Who is correct, and what was the other student's mistake?

Find the mistake in the solution of

$$x = 2y + 1, \quad 3x + 2y = 11$$

Student's Work:

1. Substitute $x = 2y + 1$ into $3x + 2y = 11$

$$3(2y + 1) + 2y = 11$$

2. Distribute

$$6y + 1 + 2y = 11$$

3. Combine terms:

$$8y + 1 = 11$$

4. Solve for y:

$$y = 11 - 1 \implies y = 10$$

5. Substitute

$$x = 2(10) + 1 = 21$$

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