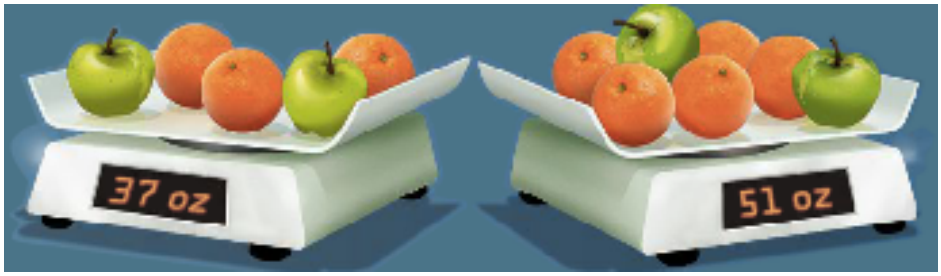
Name_____ Pd_____ Date_____ **Section 2S7**

Solve Systems by Simple Elimination

A fruit stand sells fresh fruit by the weight. All apples weigh the same and all oranges weigh the same. A customer wants to know - What is the weight of 1 apple? What is the weight of 1 oranage? (Hint: Look at what is the same on each scale.)



Discuss with your group. Write down your observations and any calculations you do.

Key Idea:

Just like the real-world situation, we can _____in algebraic systems by _____ the equations together.

1) $2x + 5y = 17$
$6x - 5y = -9$

Steps

1) Add the equations to eliminate one of the variables.
2) Solve for the remaining variable.
3) Substitute the variable you found back into one of the original equations.
4) Solve for the other variable.
5) Write the solution as an ordered pair.

2) $2x + 4y = 22$
$-2x + 2y = 8$

3) $-x + 5y = 13$
$x - y = 15$

4) $x - 3y = -11$
$3x + 3y = 27$

5) Joseph goes to a store and buys 3 collared shirts and 2 ties. He spends $80 in total. His brother John buys 4 collared shirts, but he returns 2 ties for a full refund, so he only pays $60. How much does 1 collared shirt cost? How much does 1 tie cost?