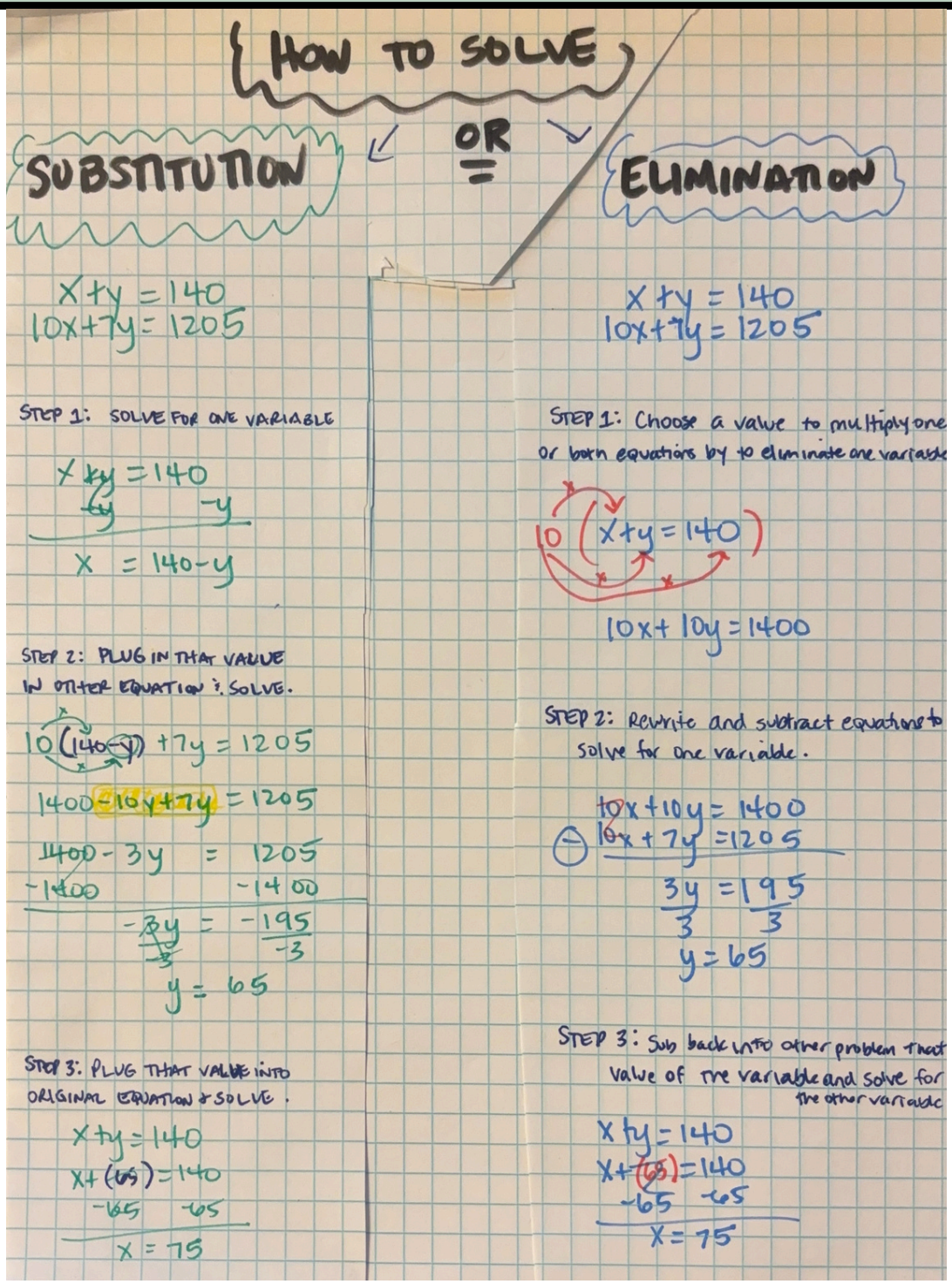
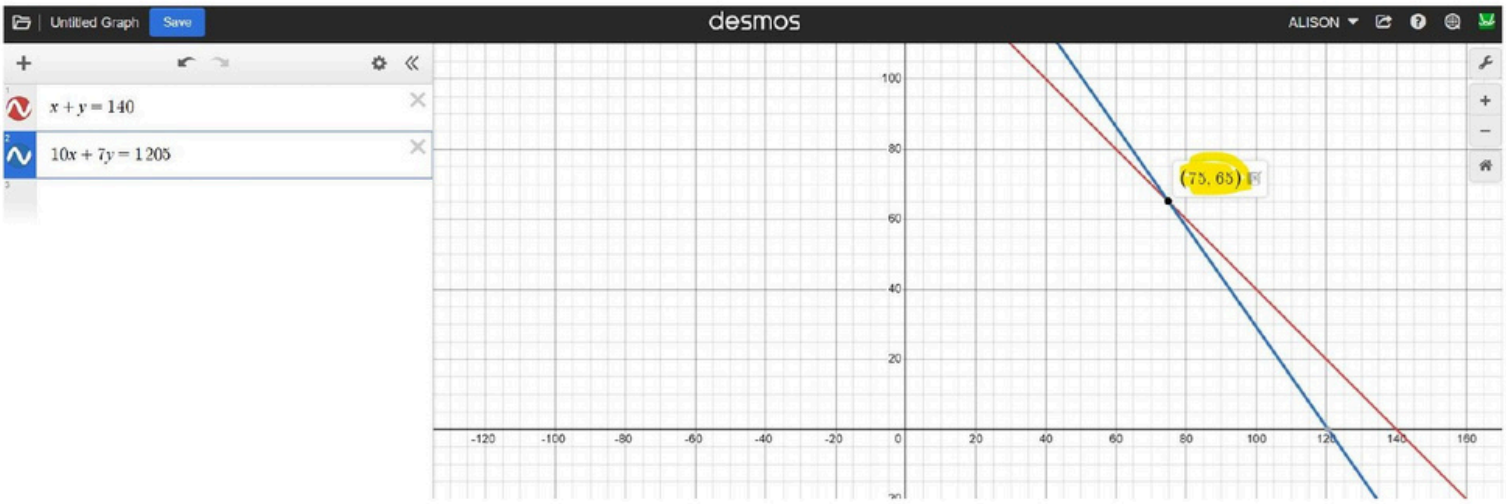
A school play sold adult tickets for $12 and student tickets for $7. A total of 180 tickets were sold for $1,530. How many adult tickets were sold?

What we know/need to know

- Make the number of adult tickets sold x and child tickets y.
- 180 tickets were sold in all, so we can use the equation x+y=180.
- Adult tickets are $12, and the number of adult tickets sold is x, we can use 12x to find the cost per number of tickets sold. EX. If you purchase 3 tickets at $12 each, you can say 3x or 3(12) and get $36 as your total cost for 3 tickets.
- The same applies for student tickets, y, that cost $7 each, and we can use the expression 7y to find the total cost of the number of student tickets purchased.
- $1,530 was collected in all, and we can use 12x+7y=1530.
- Now we can use this system of equations: x+y=180 and 12x+7y=1530 to find out the values of x and y (the number of student and adult tickets purchased) by choosing one of the steps below.
- Remember, all you're asked to find is the number of ADULT tickets sold, but below you will find both values.



You could also use Desmos to solve using a graph.



1. Type your first equation and press enter
2. Type your second equation
3. You may have to zoom out if you don't see the graph of the intersecting lines and point where they meet.
4. That point is the solution to your system of equations.
5. x=75 and y=65
   x=adult tickets
   y=child tickets