UNIT 2B TEST TOPICS

Determine whether a given point is a solution of a system…

▫ When given equations/inequalities: **substitute the (x , y) value to see if it makes the equation/inequality true**

▫ When given a graph of a system of inequalities: **is the ordered pair (x, y) in the overlapped shaded region**

Determining the number of solutions to a system of equations…



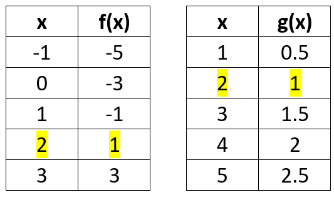
▫ Systems can have **One**, **None**, or **Infinitely Many** solutions

▫ Systems with **1** solution(s) have **different** slopes and **different/same** y-intercepts

▫ Systems with **No** solution(s) have **same** slopes and **different** y-intercepts

▫ Systems with **Infinitely Many** solution(s) have **same** slopes and **same** y-intercepts

Finding solution(s) to a system of equations…

 ▫ When given a table of values/points: **look for the same x and the same y value in each table**

▫ Methods of finding the solution(s) to a system of equations: **graphing**, **substitution**, and **elimination**

▫ When graphing, make sure your equations are in **slope intercept form 🡪 y = mx + b**

▫ Write your solution(s) as an **ordered pair (x, y)** if possible

▫ When graphing, a system with **no solution** will have parallel lines

and a system with **infinitely many solutions** will have two lines that lie

on top of one another

▫ When using substitution, at least one equation must have an **isolated variable either x = \_\_\_ or y = \_\_\_**

▫ When using elimination, you must find coefficients of the **same** variable that

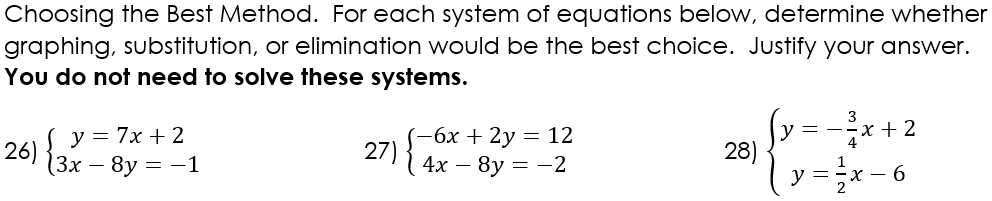
are **opposite signs**. If there are none, you must **multiply**

one or both equations by a number to create **two equations that can eliminate**

▫ When using substitution or elimination, if both variables cancel out and you are

left with something true, there is/are **infinitely many solutions** and if you are

left with something false, there is/are **no solution**



In order to find the solution(s) to a system of equations for word problems, you must:

▫ Create **2** equations to represent the given scenario

▫ Clearly **define** your variables

▫ Solve using **substitution** or **eliminiation**

▫ Make sure to include **units** with your final answers

When graphing a solution of inequalities…

▫ **graph** and **shade** your first inequality

▫ **graph** and **shade** your second inequality

▫ Solutions are where the graph is **shaded (overlapped shaded region)** or if **two solid lines** are **intersecting**