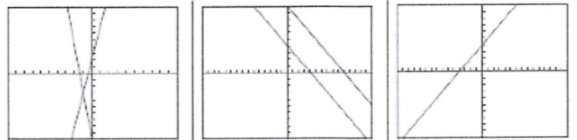
**7.6 – Properties of the systems of linear equations**

A system of two linear equations with two variables can have 0, 1 or an infinite amount of solutions.

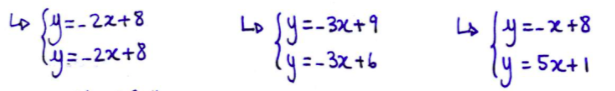


The slopes are different same slope but different same slope and same *y*-intercepts *y-*intercepts

Consequences*:* If we only want to know the number of solutions of a system, we need to write the two equations in their slope-intercept forms.

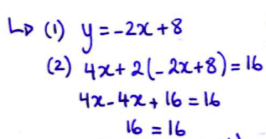
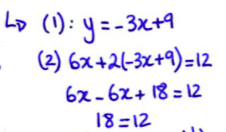
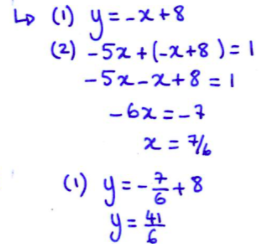
Examples:

1. b) c)



Remark: What happens if we try to solve without finding the number of solutions?

1. b) c)

(always true) (never true )

infinity of solutions ­­ no solution ­­ 1 solution

Hwk: p.448 # 4 – 8, 12 – 17, 22, 24