Equations with variables on both sides

Sections 3.4

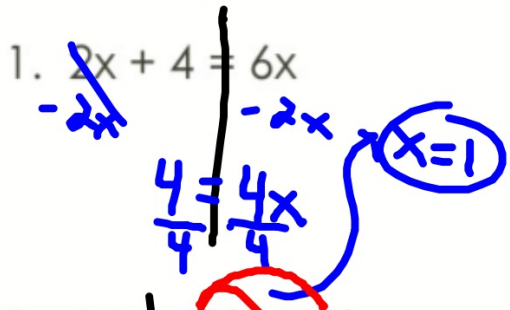
Solving for the variable

- **GOAL:** To get the variable by itself

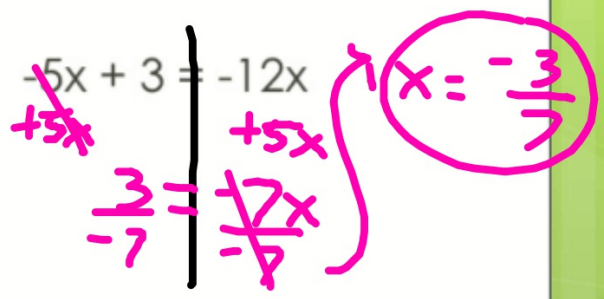
- **Steps:**
  - Get the variable on one side (try to keep it positive)
  - "Undo" by performing the opposite operation
  - Follow the REVERSE of the order of operations

Examples:

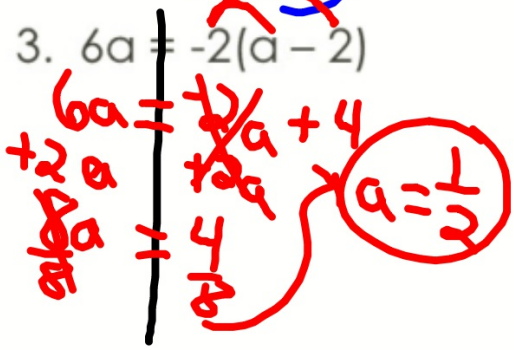
1. $2x + 4 = 6x$



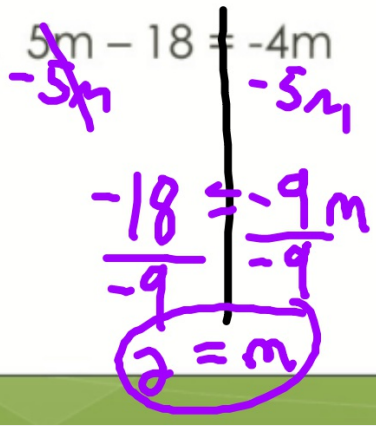
2. $-5x + 3 = -12x$

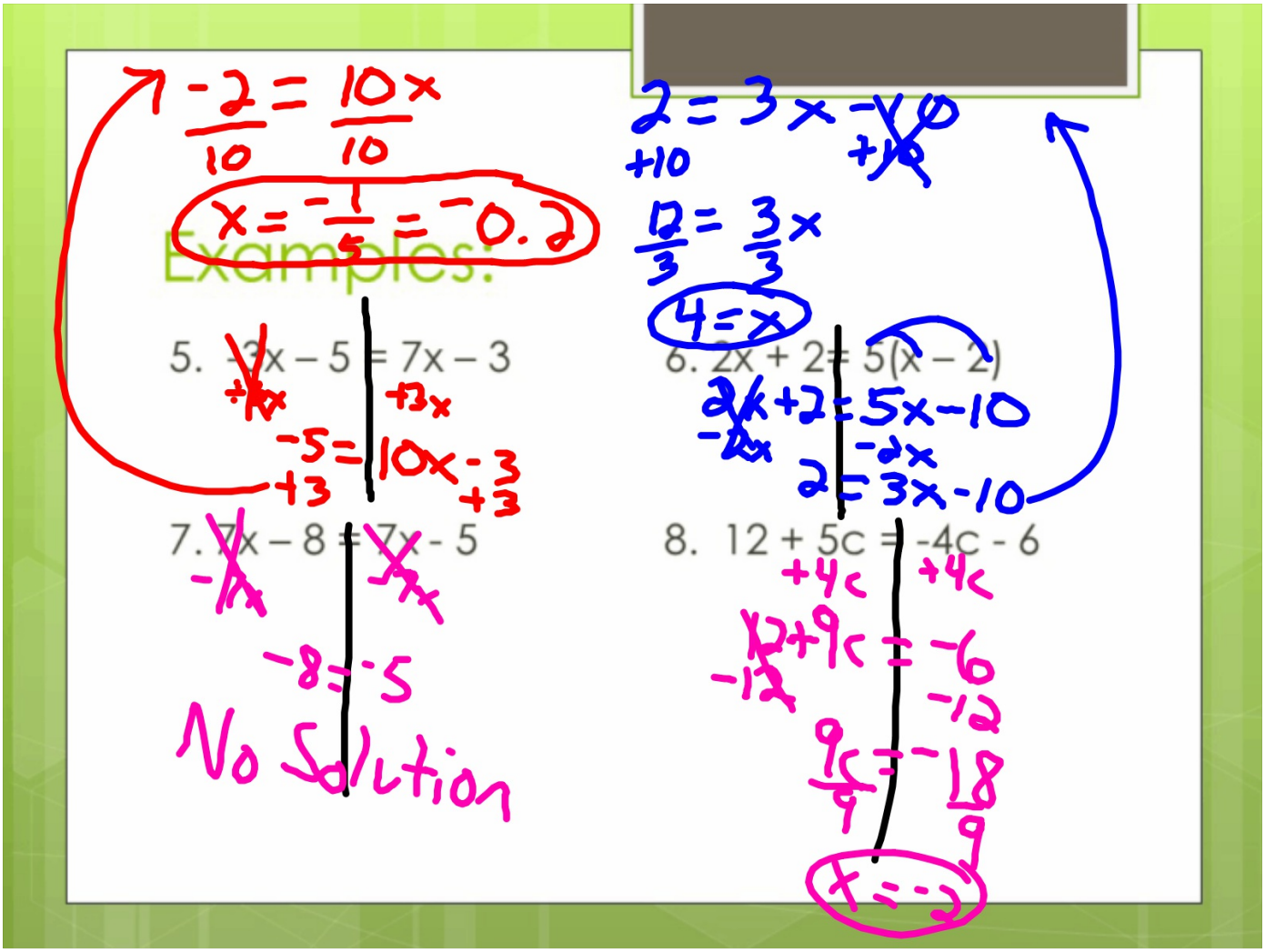


3. $6a = -2(a - 2)$



4. $5m - 18 = -4m$




Examples:
5. 3x – 5 = 7x – 3
+7x +7x
-5 = 10x - 3
+3 +3
No Solution
6. 2x + 2 = 5(x – 2)
2x + 2 = 5x - 10
-2x -2x
2 = 3x - 10
+10 +10
12/3 = 3x/3
4 = x
7. 7x – 8 = 7x - 5
-7x -7x
-8 = -5
8. 12 + 5c = -4c - 6
+4c +4c
12 + 9c = -6
-12 -12
9c/9 = -18/9
c = -2

Classwork

- Pg 157 # 4-11

- Wkst 3.4 A # 1-9 together

Homework

- Wkst 3.4 A # 10-18