

THE BACTERIA THAT CAME TO DINNER

Some bacteria got into the food, the guests ate the food and now the bacteria is ruining the reunion. The bacteria type is unknown but the cures are all known. A combination of soda water (sw), pungent tea (pt), and honey (h) will soothe the guests.

Combine all the like terms of all the bacteria cures to determine how much of each ingredient is needed

to cure Blotto use $5h + sw + pt$ 	to cure OOPS use $3pt + 3h + 3sw$ 	to cure Specks use $5sw + 5h$ 
to cure Eeeck use $12pt + 5h + 10sw$ 	to cure Ploot use $3pt + 8h$ 	to cure Fiz use $5sw + 9h + pt$ 

Total of all ingredients

List the amount of each ingredient.

Soda water _____ Pungent tea _____ Honey _____

NAME TAG TROUBLE

The name tags of some of the guests at the Movie Monster Reunion have been mixed up. Match the correct guest identification number with the guest. Careful some guests do not have ID numbers. Guests with no ID # mark with an X.

Guest #1 $5x + 3x$ **Guest #2** $6x - 13x$ **Guest #3** $r - 3r - 4r$

Guest #4 $4x + 3y - 7x + 14y + 7x$ **Guest #5** $9f - 4ef + 3e + 6ef - 3f$

Guest #6 $14v - 13w - 13w - 14v$ **Guest #7** $a + a + a + a$

Guest #8 $y + 8x + 7y - 8x$ **Guest #9** $6x + 3 - 4 + 4x$

Woofman 10x -1: Guest # _____

Zombie Boy 8x: Guest # _____

Flame Woman 28v - 26w: Guest # _____

Swamp Beast 12ef: Guest # _____

Nessy the Sea Monster 4a: Guest # _____

Yeti 15y: Guest # _____

Dancing Frankie -6r: Guest # _____

The Mummy -7x: Guest # _____

The Ooze 1a: Guest # _____

Rat Beasts 4x + 17y: Guest # _____

King Bongo -26w: Guest # _____

The Vampires 6f + 3e + 2ef: Guest # _____



SIT DOWN AND EAT

The last six guests at the reunion have not been seated. The name plates have been replaced with coded messages. Someone is causing trouble. Help the guests find their correct table by using combining like terms to decode.



A troublemaker has created a double combine terms code that guests will have to crack in order to sit in the correct table. Use this information to help crack the code and seat the guests.

$$A = 2x + y - 2, \quad B = x + 2y + 4, \quad C = x + y + 3$$

Guest Seating Code	
Table 1:	$A + B + A$
Table 2:	$A + B + B$
Table 3:	$A + B + C$
Table 4:	$C + C + C$
Table 5:	$A + C$
Table 6:	$C + C + B$

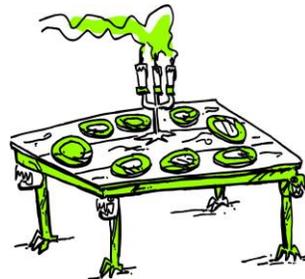


Table #

- Woofman has a code of $3x + 2y + 1$.
- Frankie holds $3x + 3y + 9$ code.
- $3x + 4y + 10$ is Nessy's code.
- King Bongo has $5x + 4y$.
- $4x + 4y + 5$ is the Vampire's code.
- The Mauler has $4x + 5y + 6$.

TRAPPED LIKE RATS

Boss Rat has been caught sabotaging the reunion. He wants to escape. His gang is trying to help him. The only way to stop them is to lock the cage release lever. Problem is there are 4 levers and none of them are marked. You will have to solve all for lever locking codes to capture the Boss Rat.



Each locking code is a complex algebraic expression. It must be in its simplest form in order to work.

Lever	complex code	locking code
1	$4a + 15 + 3a - 2b - 3b - 9$	
2	$16a + 43 - 32b - 11a - 23 + 28b$	
3	$20a + 14b - 16a - 8b + 12ab$	
4	$5b - 4a + 2b - 5a - 2b + 5b - 5a$	

