**Standards:**

* 8.EE.8c Solve real-world and mathematical problems leading to two linear equations in two variables.
* SPI 0806.3.1Find solutions to systems of two linear equations in two variables.

**Alyssa is shopping for the end-of-the-year 8th grade party. By using the weekly grocery specials below, she spent a total of $47.26, and bought 12 packages of meat.**

On **SALE** this week!





Hamburgers

$4.83 per package

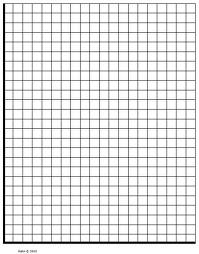
Hotdogs

$2.69 per package

[1] Write two equations to represent this situation. Explain the meaning of your variables.

[2] What is the best method to use to solve this system? Why?

[3] Using the equations in question 1, solve for the exact number packs of hotdogs and hamburgers Alyssa bought. Show all mathematical thinking.



Packs of Hotdogs: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Packs of Hamburgers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[4] Hamburgers come in a pack of 10 burgers per package, while hotdogs come in 8 per package. Alyssa knows that there will be 100 students attending the party. Using your solutions in question 3, will Alyssa have enough food for each student to have at least one sandwich (either hotdog or hamburger). Show all mathematical thinking.