Meeting 5 Student’s Booklet

MATHLOWEEN

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Halloween is celebrated every year just one day before Mexican popular festival Día de los Muertos. At some places, like the State of California, both events have wide recognition.

For this year’s celebrations, Tom decides to prepare an Aztec Soup for himself and his visitors. This dish requires to mix Mexican crema (or sour cream) and chicken broth.
At his kitchen, Tom has a large cooking pot (with a capacity of "one"), and a set of 12 different sized pitchers with the ingredients.

A pitcher is **small** if its capacity is less than half the capacity of the pot. Circle all the small pitchers.

Group the pitchers in different sets in such a way that each set fills the pot (no leftovers, please).
2 The Haunted House

This haunted house is inhabited by 108 creatures: some are mummyphants, and the rest are ghiraffes.

On each of the three floors there are 36 creatures living.
- In the first floor, two thirds of the creatures are mummyphants.
- In the second floor, the ratio M : G is 8 : 10
- The third floor is divided into two rooms, each having the same number of creatures.
  - In the first room there are 7 mummyphants for every two ghiraffes.
  - In the second room, half of the creatures are mummyphants.

How many mummyphants and ghiraffes live on each floor?

What fraction of the creatures that live in the Haunted House are mummyphants?

Continues...
All creatures are hungry so they call the Creeps and Soups restaurant for a delivery. Each mummyphant orders one *Peanuts crepe* and each ghiraffe orders one *Aztec soup*.

The creatures decide to eat in different tables, all having the same number of seats. In each table the same number of mummyphants should be seated. Also, they would like to use as many tables as possible.

Arrange the dinner: Decide how many soups to serve at each table. Remember to use as many tables as possible. You may leave some tables in the figure empty.

Write your process and answers in your notebook.
Trick-or-Trade

It is Halloween and many people are outside trick-or-treating. At one specific neighborhood residents resolve to dispense only chocolate bars and gummy bears. Quite soon, you and your friends sight people in costumes trading sweets at the local park.

Gummy bears and Chocolate bars

a. You approach to (someone disguised as) Dracula and he trades 20 gummy bears per 6 chocolate bars. Since your crew wants to get 60 gummy bears, how many chocolate bars do you need to trade?

b. Frankenstein seems in a hurry and wants to get 12 chocolate bars as soon as possible. How many gummy bears should he trade with Dracula?
Eventually, Dracula runs out of gummy bears, so he goes home and brings more. Back at the park, he realizes that all the gummy bears he brought were green. As we may expect, the trading price of gummy bears almost immediately drops by half.

Green gummy-bears

Eventually, Dracula runs out of gummy bears, so he goes home and brings more. Back at the park, he realizes that all the gummy bears he brought were green. As we may expect, the trading price of gummy bears almost immediately drops by half.

You meet a group of nice foreign mummies who have lots of gummy bears are not aware of the local trade rate. If they are interested in getting more than 12 chocolate bars by trading the least number of gummy-bears, what would you suggest them to do?

In this new situation, how many chocolate bars correspond to 60 gummy bears? How many gummy bears are needed for 12 chocolate bars?

What is the new ratio between gummy bears and chocolate bars?

Invent a new story with a trading problem and solve it in your table.