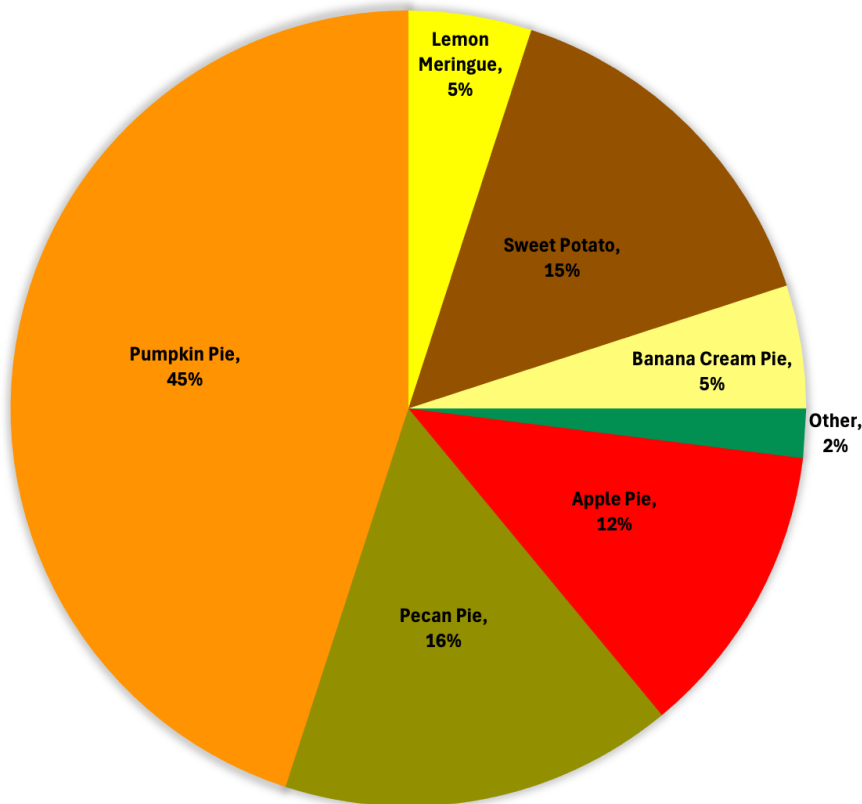**November 4**
Math Mondays
High School

Preparing for Thanksgiving Dinner

1. Seth is orchestrating a delightful Thanksgiving feast, preparing two magnificent turkeys for his family's gathering. The first, an 18-pound turkey, shall be lovingly stuffed and baked in the warm embrace of the oven at 325 degrees Fahrenheit. According to the sacred recipe, it requires 22 minutes of baking for each pound. The second, a 12-pound turkey, will undergo the enchanting transformation of deep frying in golden peanut oil, needing 3.5 minutes per pound as per its mystical instructions. Prior to carving, both turkeys must rest for a generous 15 minutes. With the family dinner set for 3:00 PM, at what time should Seth commence the cooking of each turkey, ensuring both are perfectly ready to grace the table simultaneously?

    a. Write an equation to represent the total number of minutes necessary for each turkey to cook (y) based on (x) number of pounds.
    b. Justify your answer

2. The local church is graciously organizing a complimentary Thanksgiving dinner for the community, anticipating a gathering of 200 people at the feast. Sarah must determine the ideal quantities of each beloved pie, ensuring that every guest may savor their preferred delight. Chart 1 shows the preferences of America's favorite Thanksgiving pies, as revealed by a 2023 survey.

Chart 1: 2023 Survey Results

AMERICA'S FAVORITE THANKSGIVING PIES

- Lemon Meringue, 5%
- Sweet Potato, 15%
- Banana Cream Pie, 5%
- Other, 2%
- Apple Pie, 12%
- Pecan Pie, 16%
- Pumpkin Pie, 45%

Each pie shall be divided into 8 delectable pieces. Write a recommendation to tell Sarah which pies and how many of each she should bake. Include the number of pieces of pie that will be remaining if each guest only eats one piece of pie. Justify your answers.

_____

_____

_____

_____

_____

3. Solve:

$$\text{🎃}\,\text{🎃}\,\text{🦃} = (\text{🦃}+\text{🦃}+\text{🦃}+\text{🦃}+\text{🦃})\,\text{🎃}$$

$$\text{🥧} + \text{🥧} + \text{🥧} + \text{🥧} + \text{🥧} = \text{🎃}$$

$$\text{🥧} + \text{🎃} + \text{🦃} = 3\,\text{🎃} + 1$$

$$\text{🥧} = \underline{\hspace{3cm}}$$

$$\text{🎃} = \underline{\hspace{3cm}}$$

$$\text{🦃} = \underline{\hspace{3cm}}$$

Justify your answer.

_____

_____

_____

_____

_____