**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Field Day Groups**

There are 32 boys and 24 girls that are participating for Field Day.

Part 1:
What are the various numbers of teams that can be made that would have the same number of boys and girls on each team?

Part 2:

What is the most number of teams that can be made that would have the same number of boys and girls on each team?

Part 3:

We want to represent Part 2 in an equation that shows

The Greatest Number of Groups \* (boys in each group + girls in each group).

How would you write the answer to part 2 in an equation that shows the total number of students in terms of the number of boys and girls in each group times the greatest number of groups?

**Part 1: Music**

You and your friends have tickets to attend a music concert. While standing in line, the promoter states he will give a gift card for a free album download to each person that is a multiple of 2. He will also give a backstage pass to each fourth person and floor seats to each fifth person. Which person will receive the free album download, backstage pass, and floor seats? Show your work below. Explain the process you used to determine your answer.

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**Part 2: Let’s Distribute**

42 + 12 = 6(7 + 2) Is it true or false? Prove your answer mathematically. Explain your thinking.

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How is 6 related to 42 and 12?

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