

Name: Class:

GCF and LCM word problems

- ❖ A tennis club has 60 boys and 12 girls as members. They want to break them into mixed teams of similar combination of each gender. The club manager also need everyone to participate. Find the highest number of team that the club could have after team partition.
- ❖ During the pumpkin harvest, Maude carried six pumpkins per turn in her basket. On the other hand, Laura came and left with 18 pumpkins each turn. To everyone's surprise, they harvested the same amount of pumpkins. What is the least total number of pumpkin baskets that Maude had to carry to reach that result?
- ❖ Jainy is a great fashion designer. She has 44 yards of white fabrics, 132 yards of blue fabric, and 88 yards of red fabric to design dresses for an upcoming wedding. What is the largest number of dresses she can design with the same combination of each type of fabric without having any fabrics left over?
- ❖ Hamid and his wife, Amina have a reading time table for their daughter's bedtime stories. Hamid reads to his daughter every two weeks while Amina reads to her daughter every 4 days. If they both read to their daughter today together, in how many days will both of them read to their daughter again?
- ❖ Mrs Jones grandchildren, Avery and Luna visit her every fifth day and seventh day of every month respectively. If they both visited on the 1st of December 2020, on which date did they both visit their grandmother together again?
- ❖ Last year during a bake sale, Mrs Brown baked 192 cupcakes, 96 cookies, and 144 shortbread cookies. She placed them in boxes and sold at the bake sale. If she divided the cupcakes, cookies, and shortbread cookies so that each box had the same number of each type of item,
 - a. What was the greatest number of boxes she used?
 - b. How many cupcakes, cookies and shortbread cookies were in each box?

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1. First, let's find the highest number of teams by looking at the GCF of 60 and 12. The number that can divide 60 and 12 without a remainder.

Prime factors of 60 = $2 \times 2 \times 3 \times 5$

Prime factors of 12 = $2 \times 2 \times 3$

GCF of 60 and 12 = $2 \times 2 \times 3 = 12$

» Therefore, there will be 12 teams.

» Therefore, Maude had to carry at least 18 number of pumkin baskets.

» So, she can design 44 dresses with the same combination of each type of fabric without having any fabrics left over.

» So, both of them will read to their daughter together again in 28 days.

» So, they visited their grandmother together again on the fourth of January 2021.

» a- So, she used 48 boxes.

b- So, there were 4 cupcakes, 2 cookies and 3 shortbread cookies in each box.