Name: .... Class: ....

GCF and LCM word problems

❖ Lyse realized that the number of pages in his Math's book can be divisible by 4. While talking about this with his friend, Claude, he points out that it can also be divisible by 7. What is the smallest possible number of pages does the Maths book contain?

❖ Alice and Magee have bought tomatoes on sale at two different merchants. For each tomato bought, Alice received 3 additional tomatoes. As for Magee, for every tomato she bought, she received 4 tomatoes as a bonus.
Knowing that the two women ended up with the same amounts of tomatoes after their purchase, how many tomatoes did you think Alice bought without the bonuses?

❖ Mrs. Smith wants to invite 60 guests to her daughter's grand wedding. Wedding invitations come in packs of 6, gift bags come in packs of 20, and ribbons to tie the gift come in packs of 10. What is the least number of each item she should buy to invite 60 guests and have no item left over?

❖ Two taps in Mrs. Williams apartment drips when turned off. One drips every 15 seconds and the other drips every 40 seconds. If a drop of water falls from both taps at the same time, how many minutes will it pass before both taps drips at the same time?

❖ Carter and David are fun of cycling every morning. David usually cycles 9 miles while Carter likes to cycle in blocks of 4 miles. At the end of two weeks, they realize that they have cycled the same total number of miles. What is the smallest number of kilometers that each person must have cycled?

❖ James is a great fashion designer. He has 44 yards of white fabric, 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?

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1. First, let's look at the number of pages that can be obtained with each of the multiples.

Each time we pass 4 pages we have : 4 8 12 16 20 24 ⟨28⟩ 32 36

Each time we pass 7 pages we have : 7 14 21 ⟨28⟩ 35 42 49 56 63

2. We can notice that the multiples (4, 7) first meet at 28. So, the smallest number of pages contained in the maths book is 28.

❖ Alice bought 12 tomatoes without bonuses.

❖ She should buy 10 packs of wedding invitation, 3 packs of gift bags, and 6 packs of ribbons to invite 60 6guests and have no item leftover.

❖ 120 seconds will pass before both taps drip at the same time.

❖ Each person must have cycled 57.6 kilometers at the end of two weeks.

❖ She can design 44 dresses with the same combination of each type of fabric without having any fabrics left over.