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

GCF and LCM word problems

❖ During an eating challenge of potato chips, a Player A ate 4 chips per bite while Player B took 17 chips per mouthful. Curiously, at the end of the competition, the number of chips each player had eaten was the same.

What could be the total number of potato chips that each player, A and B had aten?

❖ Paul and Martin run two bakeries, each receiving the same amount of loaves of bread per day. Paul arranges his loaves of bread in equal quantity, in 15 showcases while on Martin's side, the loaves of bread are distributed in equal quantities in 21 showcases.

What is the least number of loaves of bread that are delivered to each baker daily?

mathskills4kids

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What could be the total number of potato chips that each player, A and B had aten?

1. Let's look at the least possible number of potato chips each player ate. We will find the LCM of 4 and 17.
So multiples of 4 are : 4, 8, 12, 16, 20, 24, 28, 24, 32, 36, 40, 44, 48, 52, 56, 60, 68, 72 ...
    multiples of 17 are : 17, 34, 51, 68, 85 ...

➡ So, each player ate 68 potatoe chips.

◆ Paul and Martin run two bakeries, each receiving the same amount of loaves of bread per day. Paul arranges his loaves of bread in equal quantity, in 15 showcases while on Martin's side, the loaves of bread are distributed in equal quantities in 21 showcases.

What is the least number of loaves of bread that are delivered to each baker daily?

1. To find the least number of loaves of bread delivered to each baker daily, we will look at the LCM of 15 and 21.
    Multiples of 15 are : 15, 30, 45, 60, 75, 90, 105, 120 ...
    Multiples of 21 are : 21, 42, 63, 84, 105, 126 ...

    Therefore the LCM of 15 and 21 is 105

➡ This implies each baker receives at least 105 loaves of bread daily.