



If it is an LCM Problem

- What is the question asking us?
- Do we have an event that is or will be repeating over and over?
- Will we have to purchase or get multiple items in order to have enough?
- Are we trying to figure out when something will happen again at the same time?
- **Will my answer be larger than the original numbers in the question?**



If it is a GCF Problem

- What is the question asking us?
- Do we have to split things into smaller sections?
- Are we trying to figure out how many people we can invite?
- Are we trying to arrange something into rows or groups?
- **Will my answer be the same or smaller than the original numbers in the question?**

- Samantha has two pieces of cloth. One piece is 72 inches wide and the other piece is 90 inches wide. She wants to cut both pieces into strips of equal width that are as wide as possible. How wide should she cut the strips?

$$\begin{array}{l} \text{GCF} \quad 72 \rightarrow 2 \times 2 \times 2 \times 3 \times 3 \\ \quad \quad 90 \rightarrow 2 \times 3 \times 3 \times 5 \end{array}$$

$2 \times 3 \times 3$

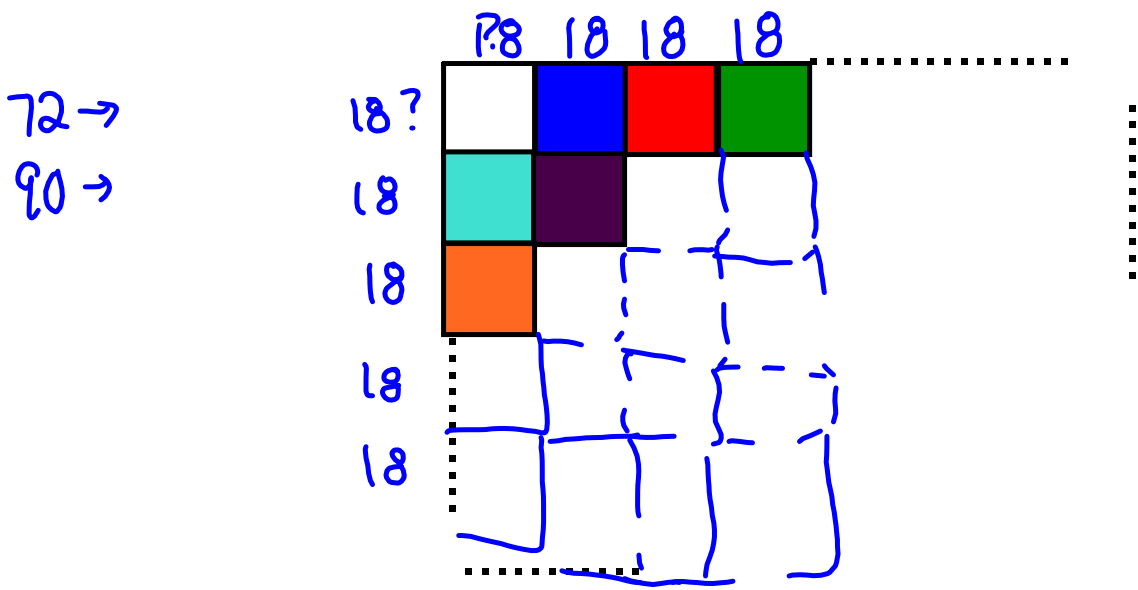
$$\text{GCF} = 18$$

- Ben exercises every 12 days and Isabel every 8 days. Ben and Isabel both exercised today. How many days will it be until they exercise together again?

LCM

$$12 \rightarrow 2 \times 2 \times 3 \Rightarrow 2^2 \times 3^1$$
$$8 \rightarrow 2 \times 2 \times 2 \Rightarrow 2^3$$
$$2^3 \times 3^1$$
$$8 \times 3$$
$$\text{LCM} = 24$$

b) Martin is pasting pieces of square colored paper of equal size onto a board measuring 72 cm by 90 cm. If only whole square pieces are used, and the board is to be completely covered, find the largest possible length of the side of each square colored paper.



On a track for remote-controlled racing cars, racing car A completes the track in 28 seconds, while racing car B completes it in 24 seconds. If they both start at the same time, after how many seconds will they be side by side again?



