



**MEDIUM:** Read each problem carefully to determine if you should find the GCF or LCM. Show your work and answer the questions in a complete sentence.

- 1) Tess has collected 30 Disney t-shirts and 12 Disney posters from her visits to Disney World. She wants to combine them into identical sets, with no pieces left over. What is the greatest number of sets Tess can make? How many t-shirts and posters will be in each set? GCF

$$\begin{array}{r|rr} 6 & 30 & 12 \\ 1 & 5 & 2 \\ \hline & 6 \cdot 1 = 6 & \end{array}$$

6 sets with 5 t-shirts and 2 posters



- 2) Matthew goes hiking every 12 days and swimming every 10 days. He did both kinds of exercise today, Tuesday the 5th. How many days from now will he go both hiking and swimming again? ~~On what day and date will it be?~~ LCM

$$\begin{array}{r|rr} 2 & 12 & 10 \\ 1 & 6 & 5 \\ \hline \end{array}$$

60 days

2 · 1 · 6 · 5 = 60



- 3) The chorus teachers wants to divide the chorus into smaller groups. There are 24 sopranos, 60 altos, and 36 tenors. Each group must have the same number of students. What is the greatest number of groups that can be formed? How many sopranos, altos, and tenors will be in each group? GCF : 6 · 2 · 1 = 12

$$\begin{array}{r|rrr} 6 & 60 & 36 & 24 \\ 2 & 10 & 6 & 4 \\ 1 & 5 & 3 & 2 \\ \hline \end{array}$$

12 groups: 5 Altos, 3 tenors, 2 Sopranos



- 4) Starting at 6:00 am, a bus stops at my street corner every 15 minutes. Also starting at 6:00 am, a taxi cab comes by every 18 minutes. What is the next time both a bus and a taxi cab are at the corner at the same time? LCM

$$\begin{array}{r|rr} 3 & 15 & 18 \\ 1 & 5 & 6 \\ \hline \end{array}$$

3 · 1 · 5 · 6 = 90 minutes later

7:30 am



- 5) There are 40 girls and 32 boys who want to participate in a relay race. If each team must have the same combination of girls and boys, what is the greatest number of teams that can race? How many boys and girls will be on each team? GCF

$$\begin{array}{r|rr} 8 & 40 & 32 \\ 1 & 5 & 4 \\ \hline & 8 \cdot 1 = 8 & \end{array}$$

8 teams with 5 girls + 4 boys

Keep Scrolling...there's 1 more!

6) At the grand opening of a store, the owner gave away stickers and T-shirts to some of the customers.

- A total of 180 customers visited the store at the grand opening.
- Every 10<sup>th</sup> customer received a free sticker.
- Every 25<sup>th</sup> customer received a free t-shirt.

- What is the total number of customers who received a free sticker?
- What is the total number of customers who received a free t-shirt?
- What is the total number of customers who received both a free sticker AND a free t-shirt?

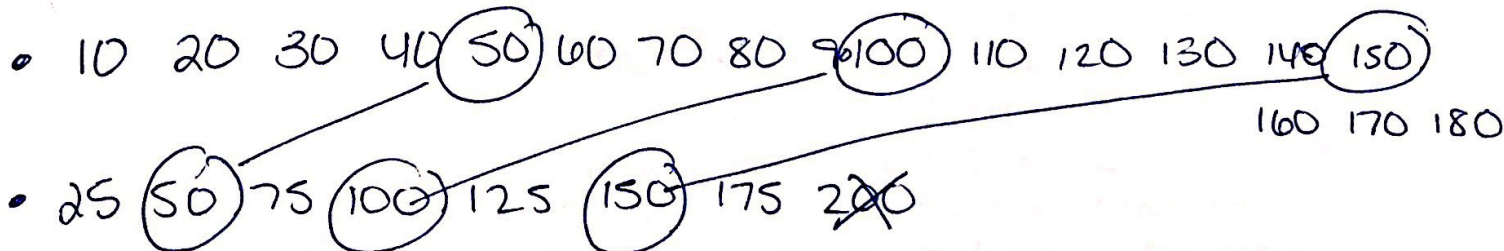
a)  $180 \div 10 = 18$  people got a sticker

b)  $180 \div 25 = 7$  people got a t-shirt

$$\begin{array}{r} 7 \\ 25 \overline{) 180} \\ \underline{-175} \\ 5 \end{array}$$

$\frac{1}{25}, \frac{2}{50}, \frac{3}{75}, \frac{4}{100}, \frac{5}{125}, \frac{6}{150}, \frac{7}{175} \Big| 200$  only 180 people

c) LCM  $\begin{array}{r} 5 \overline{) 10 \ 25} \\ \underline{1 \ 2 \ 5} \end{array}$   
 $5 \cdot 2 \cdot 5 = 50$



3 people