



# Key

**MILD:** 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 15 Disney t-shirts and 6 Disney posters from her visits to Disney World. She wants to combine them into identical sets, with no pieces left over.

- GCF
- What is the greatest number of sets Tess can make?
  - How many t-shirts and posters will be in each set?
- a) 6 sets of t-shirts + posters  
 b) 5 t-shirts / 2 posters in each set

$$\begin{array}{r|rr} & T & P \\ 3 & 15 & 6 \\ 2 & 5 & 2 \\ \hline & 3 \cdot 2 = 6 & \end{array}$$

$$15 \div 3 = 5$$

$$6 \div 2 = 3$$



- 2) Matthew goes hiking every 12 days and swimming every 4 days. He did both kinds of exercise today, Tuesday the 5th. How many days from now will he go both hiking and swimming again?

- 12, 24, 36...  
 4, 8, 12...

In 12 days Matthew will go hiking and swimming.

LCM



- 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?

GCF

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

12 groups



- 4) Starting at 6:00 am, a bus stops at my street corner every 5 minutes. Also starting at 6:00 am, a taxi cab comes by every 20 minutes.

- After how many minutes will both the bus and taxi cab meet again?
- What time will it be when they meet again?

- a) 20 minutes  
 b) 6:20 am

LCM

$$\begin{array}{r|rr} 5 & 5 & 20 \\ 4 & 1 & 4 \\ \hline & 5 \cdot 4 = 20 & \end{array}$$

or 5, 10, 15, 20...  
 20, 40...



- 5) There are 40 girls and 32 boys who want to participate in a relay race. Each team must have the same combination of girls and boys.

- GCF
- What is the greatest number of teams that can race?
  - How many boys and girls will be on each team?

$$\begin{array}{r|rr} & G & B \\ 4 & 40 & 32 \\ 2 & 10 & 8 \\ 1 & 5 & 4 \\ \hline & 4 \cdot 2 \cdot 1 = 8 & \end{array}$$

$$40 \div 8 = 5$$

$$32 \div 8 = 4$$

- a) 8 teams  
 b) 5 boys / 4 girls in each group