Greatest Common Factor and Lowest Common Multiple: Making Sense of Prime Factorization

Schema per Dr. Dawn Slavens and MWSU Students

Reminder: Greatest Common Factor is usually **Smaller** than given numbers and Lowest Common Multiple is usually **Larger** than given numbers.

To find GCF and LCM of $24a^3b^6c$ and $36a^4b$,

rewrite 24 as $2^3 \cdot 3$ and 36 as $2^2 \cdot 3^2$.

To find GCF and LCM of $2^3 \cdot 3a^3b^6c$ and $2^2 \cdot 3^2a^4b$

GCF — smallest collection of each prime factor found in either place

largest collection of each prime factor found in either place — LCM