

# Least Common Denominator

Samuel Dearman

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$$\begin{aligned}36 &= 2^2 \cdot 3^2 \\120 &= 2^3 \cdot 3 \cdot 5 \\lcm &: 2^3 \cdot 3^2 \cdot 5\end{aligned}$$

Use case:

$$\begin{aligned}\frac{5}{36} + \frac{7}{120} &= \frac{5 \cdot 2 \cdot 5}{36 \cdot 2 \cdot 5} + \frac{7 \cdot 3}{120 \cdot 3} \\&= \frac{50+21}{360}\end{aligned}$$