

Math 105 Skill Builder #F - 14

Finding the LCD – Denominators are Relatively Prime

When the denominators are relatively prime (there are no common prime factors) use the product of the denominators as the least common denominator.

Consider the fractions, $\frac{3}{5}$ and $\frac{6}{7}$.

$$\begin{aligned}\text{LCD} &= \text{LCM of 5 and 7} \\ &= 5 \cdot 7 = 35\end{aligned}$$

Examples:

Finding the LCD	
$\frac{1}{3}$ and $\frac{6}{7}$	$\text{LCD} = 3 \cdot 7 = 21$
$\frac{3}{5}$ and $\frac{4}{13}$	$\text{LCD} = 5 \cdot 13 = 65$
$\frac{2}{3}$ and $\frac{1}{19}$	$\text{LCD} = 3 \cdot 19 = 57$

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Finding the LCD – Denominators are Relatively Prime

Find the LCD of the given fractions.

1) $\frac{3}{5}$ and $\frac{1}{17}$
2) $\frac{3}{5}$ and $\frac{4}{3}$
3) $\frac{13}{61}$ and $\frac{6}{7}$
4) $\frac{3}{11}$ and $\frac{6}{17}$
5) $\frac{3}{19}$ and $\frac{1}{5}$
6) $\frac{30}{41}$ and $\frac{1}{2}$

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Answers:

1) 85

2) 15

3) 427

4) 187

5) 95

6) 82

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