

NOTES: LCD Review

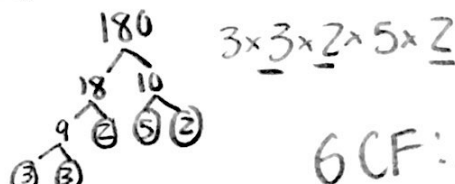
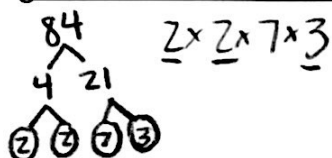
Goals: #1 - I can find the least common denominator (LCD) of a pair of fractions.

Homework: Pretest Corrections



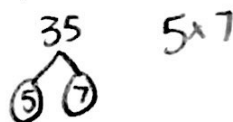
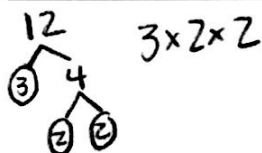
Warm Up:

1. Find the greatest common factor (GCF) of 84 and 180.



GCF: $2 \times 2 \times 3 = \boxed{12}$

2. Find the least common multiple (LCM) of 12 and 35.



LCM: $3 \times 2 \times 2 \times 5 \times 7 = \boxed{420}$

Exploration #1: Work with a partner and add/subtract the following fractions.

1. $\frac{1}{5} + \frac{2}{5}$

$\boxed{\frac{3}{5}}$

2. $\frac{5}{7} - \frac{1}{3}$

$\frac{5}{7} = \frac{15}{21}$

$\frac{1}{3} = \frac{7}{21}$

$\frac{15}{21} - \frac{7}{21} = \boxed{\frac{8}{21}}$

3. $\frac{1}{4} + \frac{1}{6}$

$\frac{1}{4} = \frac{6}{24}$

$\frac{1}{6} = \frac{4}{24}$

$\frac{6}{24} + \frac{4}{24} = \frac{10}{24} = \boxed{\frac{5}{12}}$

Notes:

When adding and subtraction fractions with unlike denominators, we need to find a common denominator of the two fractions.

The least common denominator (LCD) of two fractions is the least common multiple (LCM) of their denominators.

Example: $\frac{1}{4}, \frac{1}{6}$

Denominators: 4: 4, 8, 12, ... → LCM
6: 6, 12, ...

$\boxed{\text{LCD: } 12}$

Example #1: Find the least common denominator (LCD) of the pair of fractions.

a. $\frac{5}{8}, \frac{1}{6}$

8: 8, 16, 24, 32, 40, ...

6: 6, 12, 18, 24, 30, ...

$\boxed{\text{LCD: } 24}$

b. $\frac{1}{6}, \frac{3}{10}$

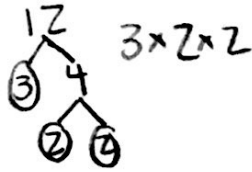
6: 6, 12, 18, 24, 30
10: 10, 20, 30

$\boxed{\text{LCD: } 30}$

Name: _____ Hour: _____ Date: _____

Let's practice! Find the least common denominator (LCD) of the pair of fractions.

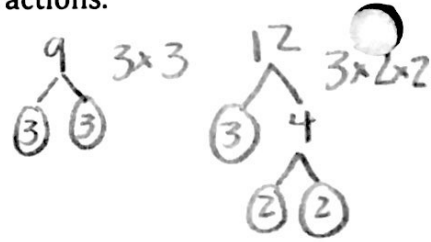
1. $\frac{1}{3}, \frac{11}{12}$ 3



LCM: $3 \times 2 \times 2 = 12$

LCD: 12

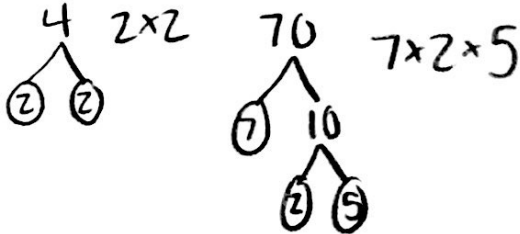
2. $\frac{4}{9}, \frac{7}{12}$



LCM: $3 \times 3 \times 2 \times 2 = 36$

LCD: 36

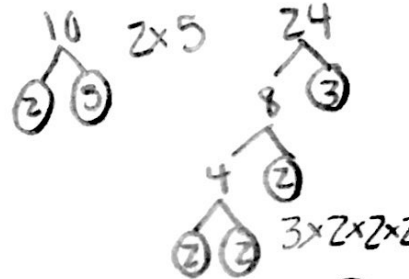
3. $\frac{3}{4}, \frac{9}{70}$



LCM: $2 \times 2 \times 7 \times 5 = 140$

LCD: 140

4. $\frac{7}{10}, \frac{13}{24}$



LCM: $2 \times 5 \times 3 \times 2 \times 2 = 120$

LCD: 120