

AIM: 5-5 I will be able to subtract fractions by renaming!

Name _____
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Date _____
Math 6

HOW TO RENAME MIXED NUMBERS

Example: $6\frac{7}{8} = \cancel{6}^1\frac{7}{8} + \frac{8}{8} = 5\frac{7+8}{8} = 5\frac{15}{8}$

Borrow ONE whole from the whole number and write it in fraction form.

Add the numerators and put the sum over the denominator.

Warm-up: Rename the fractions below. *add deno. to numerator*

a) $\cancel{6}^3\frac{4}{3} = 6\frac{7}{3}$

b) $\cancel{5}^5\frac{4}{5} = 4\frac{9}{5}$

$6\cancel{7}^3\frac{4}{3} + \frac{3}{3}$

$4\cancel{5}^5\frac{4}{5} + \frac{5}{5}$

KEY CONCEPT: Renaming Fractions to **SUBTRACT** Mixed Numbers

When subtracting mixed numbers, sometimes the fractional part of the second mixed number is greater. You must *rename* the first mixed number so you can subtract.

<p>1) Write $6\frac{1}{6} - 3\frac{2}{3}$</p>	<p>2) Find LCD $3, \textcircled{6}, 9, \dots$ LCD: 6 $\textcircled{6}, 12, 18, \dots$</p>
<p>3) Rewrite and Solve</p> $6\frac{1}{6} - 3\frac{2}{3} \cdot \frac{2}{2}$ $\downarrow \quad \downarrow$ $\cancel{6}^6\frac{1}{6} - 3\frac{4}{6}$ $5\frac{7}{6} - 3\frac{4}{6}$	<p>4) Simplify</p> $2\frac{3 \div 3}{6 \div 3} = \textcircled{2\frac{1}{2}}$

Now You Try!

Problem 1:

1) Write $8 - 5\frac{1}{8}$	2) Find LCD 8
3) Rewrite and Solve $8 - 5\frac{1}{8}$ $7\frac{8}{8} - 5\frac{1}{8}$	4) Simplify $2\frac{7}{8}$

Problem 2:

1) Write $8\frac{1}{4} - 5\frac{2}{3}$	2) Find LCD 3, 6, 9, <u>12</u> ... 4, 8, <u>12</u> ... LCD: 12
3) Rewrite and Solve $8\frac{1}{4} - 5\frac{2}{3}$ $\downarrow \quad \downarrow$ $7\frac{3}{12} - 5\frac{8}{12}$ $7\frac{15}{12} - 5\frac{8}{12}$	4) Simplify $2\frac{7}{12}$

$$D: 63 \frac{7}{8} \text{ in.} = 63 \frac{35}{40} \quad \text{LCD: } 40$$

$$S: \underline{63 \frac{2}{5} \text{ in.}} = \underline{63 \frac{16}{40}}$$
$$\frac{19}{40}$$

Danielle is taller by $\frac{19}{40}$ inch.

② Total: $7 \frac{1}{4}$ c.

1st: $2 \frac{1}{4}$ c. > add

2nd: $2 \frac{1}{3}$ c.

3rd: ?