Fractions day 3

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Mixed Fractions - Has a whole number infront of the partial number

$1\frac{3}{4} = 1.75$

Converting Mixed Proper Fractions Into Improper

ex: $2\frac{1}{5} = \frac{11}{5}$ (10 ← +1, 2 → ×5)

steps:
1. denominator X whole number
2. Product from 1 adds to numerator
3. do not change denominator (yet)

You try:

a) $3\frac{7}{8} = \frac{31}{8}$ (24 ← +7, 3 → ×8)

b) $1\frac{11}{12} = \frac{23}{12}$ (12 ← +11, 1 → ×12)

c) $2\frac{3}{4} = \frac{11}{4}$ (8 ← +3, 2 → ×4)

Convert from Improper Fractions to Mixed Proper Fractions

ex: $\frac{15}{4}$ (−12) $3\frac{3}{4}$

4 8 12 16 ....
4×3

steps:
1. list multiples of denominator. Choose value closest to But Smaller than numerator. The amount of times the multiple goes IN to the numerator is the whole number
2. Subtract the multiples value from the numerator
3. denominator does not change

You try:

a) $\frac{9}{7}$ (−7) $1\frac{2}{7}$

b) $\frac{5}{4}$ (−4) $1\frac{1}{4}$

c) $\frac{12}{5}$ (−10) $2\frac{2}{5}$

d) $\frac{43}{6}$ (−42) $7\frac{1}{6}$

42

Reducing the final answer: divide both numerator and denominator by same common factor

ignore when reducing

denominator by same common factor

ignore when reducing

a) $\frac{12}{24} \overset{\div 2}{\underset{\div 2}{}} \frac{6}{12} \overset{\div 6}{\underset{\div 6}{}} \frac{1}{2}$ b) $\frac{16}{24} \overset{\div 2}{\underset{\div 2}{}} \frac{8}{12} \overset{\div 2}{\underset{\div 2}{}} \frac{4}{6} \overset{\div 2}{\underset{\div 2}{}} \frac{2}{3}$ c) $3\frac{7}{21} \overset{\div 7}{\underset{\div 7}{}} 3\frac{1}{3}$

Solve:

a) $\frac{4}{5} \overset{\times 3}{\underset{\times 3}{}} - \frac{1}{3} \overset{\times 5}{\underset{\times 5}{}} = \frac{12}{15} - \frac{5}{15} = \frac{7}{15}$

LCD 3 6 9 12 15
5 10 15

b) $3\frac{2}{3} - \frac{7}{8}$

$\frac{5}{3} \overset{\times 8}{\underset{\times 8}{}} - \frac{7}{8} \overset{\times 3}{\underset{\times 3}{}} = \frac{40}{24} - \frac{21}{24} = \frac{19}{24}$

LCD 3 6 9 12 15 18 21 24
8 16 24

c) $4\frac{1}{2} + 6\frac{5}{6}$

$\frac{9}{2} \overset{\times 3}{\underset{\times 3}{}} + \frac{11}{6}$ $\frac{27}{6} + \frac{11}{6} = \frac{38}{6}$ $6\frac{2}{6} \overset{\div 2}{\underset{\div 2}{}} 6\frac{1}{3}$