

Week 1 - Thursday: Adding & Subtracting Unlike Fractions (Key)

Name: _____ Date: _____

4 steps for unlike fractions:

- 1) Find a common denominator (the LCM). 2) Rename: multiply top AND bottom by the same number.
- 3) Add or subtract the numerators. Keep the denominator. 4) Simplify if needed.

Example: $\frac{3}{4} - \frac{5}{12} = \frac{9}{12} - \frac{5}{12} = \frac{4}{12} = \frac{1}{3}$

Part A - The video's examples

1) $\frac{2}{5} + \frac{1}{10} =$

LCD = 10

$$\frac{4}{10} + \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

2) $\frac{7}{12} + \frac{3}{8} =$

LCD = 24

$$\frac{14}{24} + \frac{9}{24} = \frac{23}{24}$$

3) $\frac{3}{4} - \frac{5}{12} =$

LCD = 12

$$\frac{9}{12} - \frac{5}{12} = \frac{4}{12} = \frac{1}{3}$$

4) $\frac{4}{9} - \frac{1}{6} =$

LCD = 18

$$\frac{8}{18} - \frac{3}{18} = \frac{5}{18}$$

Part B - The video's practice problems

$$5) \quad \frac{2}{9} + \frac{2}{3} =$$

LCD = 9

$$\frac{2}{9} + \frac{6}{9} = \frac{8}{9}$$

$$6) \quad \frac{3}{10} + \frac{6}{15} =$$

LCD = 10

$$\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$$

$$7) \quad \frac{7}{8} - \frac{11}{16} =$$

LCD = 16

$$\frac{14}{16} - \frac{11}{16} = \frac{3}{16}$$

$$8) \quad \frac{3}{5} - \frac{1}{3} =$$

LCD = 15

$$\frac{9}{15} - \frac{5}{15} = \frac{4}{15}$$

Part C - Add or subtract (simplify!)

9) $\frac{1}{2} + \frac{1}{6} =$

LCD = 6

$$\frac{3}{6} + \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$$

10) $\frac{5}{6} - \frac{1}{4} =$

LCD = 12

$$\frac{10}{12} - \frac{3}{12} = \frac{7}{12}$$

11) $\frac{2}{3} + \frac{1}{5} =$

LCD = 15

$$\frac{10}{15} + \frac{3}{15} = \frac{13}{15}$$

12) $\frac{7}{10} - \frac{1}{2} =$

LCD = 10

$$\frac{7}{10} - \frac{5}{10} = \frac{2}{10} = \frac{1}{5}$$

13) $\frac{3}{8} + \frac{1}{6} =$

LCD = 24

$$\frac{9}{24} + \frac{4}{24} = \frac{13}{24}$$

14) $\frac{5}{9} - \frac{1}{3} =$

LCD = 9

$$\frac{5}{9} - \frac{3}{9} = \frac{2}{9}$$

Part C (continued)

$$15) \quad \frac{1}{4} + \frac{5}{12} =$$

LCD = 12

$$\frac{3}{12} + \frac{5}{12} = \frac{8}{12} = \frac{2}{3}$$

$$16) \quad \frac{11}{12} - \frac{3}{4} =$$

LCD = 12

$$\frac{11}{12} - \frac{9}{12} = \frac{2}{12} = \frac{1}{6}$$

$$17) \quad \frac{2}{7} + \frac{1}{2} =$$

LCD = 14

$$\frac{4}{14} + \frac{7}{14} = \frac{11}{14}$$

$$18) \quad \frac{9}{10} - \frac{2}{5} =$$

LCD = 10

$$\frac{9}{10} - \frac{4}{10} = \frac{5}{10} = \frac{1}{2}$$

Part D - Word problems

- 19) Bensen ate $\frac{1}{3}$ of a pizza and his friend ate $\frac{1}{4}$ of it.
How much of the pizza did they eat in all?

LCD = 12: $\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$ of the pizza

- 20) A ribbon is $\frac{5}{6}$ of a yard long. Bensen cuts off $\frac{1}{2}$ of a yard.
How much ribbon is left?

LCD = 6: $\frac{5}{6} - \frac{3}{6} = \frac{2}{6} = \frac{1}{3}$ of a yard

Explain: Why do we need a common denominator?

The pieces must be the same size before we can add or subtract them.