



WARM UP GRADE 7

Oct 7



1. Use Mental Math:

a) 16×15
130

b) $\$5.99 - \2.49
\$ 3.50

2. Convert the following:

(a) Convert to mixed number:

$$\frac{16}{4} = 4$$

$$\begin{array}{r} 4 \\ 4 \overline{) 16} \\ \underline{- 16} \\ 0 \end{array}$$

(b) Convert to improper fraction:

$$4 \frac{8}{12} = \frac{56}{12} = \frac{14}{3}$$

Adding Fractions

When you want to add fractions that do not have the same denominators without modeling, the first thing you have to do is find equivalent fractions with the same denominators.

1. Look at the denominators and find the LCM (lowest common multiple)
2. Get equivalent fractions with the new denominators
3. Add the numerators and the denominators will stay the same.

Examples:

$$\frac{3}{5} + \frac{2}{9}$$

x5 x9

List the factors of each denominator

5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60...

9: 9, 18, 27, 36, 45, 81...

LCM is 45

you need to show this

$$\frac{3 \times 9 + 2 \times 5}{5 \times 9 + 9 \times 5} = \frac{27 + 10}{45 + 45} = \frac{37}{45}$$

Your Turn

a) $\frac{3}{15} + \frac{1}{6}$ LCM

3 × 2 1 × 5 15: 15, 30, 45
6: 6, 12, 18, 24, 30

$$\frac{3}{15 \times 2} + \frac{1}{6 \times 5}$$

$$\frac{6}{30} + \frac{5}{30}$$

$$\frac{11}{30}$$

$\frac{7}{12} + \frac{3}{8}$

12: 12, 24, 36
8: 8, 16, 24

7 × 2 3 × 3
12 × 2 8 × 3

$$\frac{7}{12 \times 2} + \frac{3}{8 \times 3}$$

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

$$\frac{23}{24}$$

Let's try these together

$$\frac{1}{2} + \frac{3}{10}$$

$$\frac{1 \times 5}{2 \times 5} + \frac{3}{10}$$

$$\frac{5}{10} + \frac{3}{10}$$

$$\frac{8 \div 2}{10 \div 2} = \frac{4}{5}$$

$$2: 2, 4, 6, 8, \underline{10}, 12$$

$$10: \underline{10}$$

$$\frac{1}{3} + \frac{1}{7}$$

$$\frac{1 \times 7}{3 \times 7} + \frac{1 \times 3}{7 \times 3}$$

$$\frac{7}{21} + \frac{3}{21}$$

$$\frac{10}{21}$$

$$3: 3, 6, 9, 12, 15, 18, \underline{21}, 24$$

$$7: 7, 14, \underline{21}$$

$$\frac{5}{6} + \frac{3}{8}$$

$$\frac{5 \times 4}{6 \times 4} + \frac{3 \times 3}{8 \times 3}$$

$$\frac{20}{24} + \frac{9}{24}$$

$$\frac{29}{24}$$

$$6: 6, 12, 18, \underline{24}, 30$$

$$8: 8, 16, \underline{24}$$

Try on your own

a) $\frac{4}{5} + \frac{1}{10}$

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

$$5:5, 10$$

$$10:10$$

$$\frac{8}{10} + \frac{1}{10}$$

$$\frac{9}{10}$$

c) $\frac{7}{10} + \frac{3}{20}$

$$10:10, 20$$

$$20:20$$

$$\frac{7 \times 2}{10 \times 2} + \frac{3}{20}$$

$$\frac{14}{20} + \frac{3}{20}$$

$$\frac{17}{20}$$

g) $\frac{1}{2} + \frac{6}{11}$

b) $\frac{3}{12} + \frac{1}{4}$

$$4:4, 8, 12$$

$$12:12, 24$$

$$\frac{3}{12} + \frac{1 \times 3}{4 \times 3}$$

$$\frac{3}{12} + \frac{3}{12}$$

$$\frac{6 \div 3}{12 \div 3} + \frac{2 \div 2}{4 \div 2} = \frac{1}{2}$$

d) $\frac{6}{25} + \frac{11}{50}$

$$25:25, 50$$

$$50:50$$

$$\frac{6 \times 2}{25 \times 2} + \frac{11}{50}$$

$$\frac{12}{50} + \frac{11}{50}$$

$$\frac{23}{50}$$

h) $\frac{3}{4} + \frac{3}{10}$

i) $\frac{5}{7} + \frac{2}{3}$

j) $\frac{11}{20} + \frac{7}{30}$

Add

a) $\frac{4}{5} + \frac{1}{10}$

$$\frac{8}{10} + \frac{1}{10} = \frac{9}{10}$$

b) $\frac{3}{12} + \frac{1}{4}$

$$\frac{3}{12} + \frac{3}{12} = \frac{6}{12}$$

c) $\frac{7}{10} + \frac{3}{20}$

$$\frac{14}{20} + \frac{3}{20} = \frac{17}{20}$$

d) $\frac{6}{25} + \frac{11}{50}$

$$\frac{12}{50} + \frac{11}{50} = \frac{23}{50}$$

e) $\frac{1}{3} + \frac{1}{4}$

$$\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$$

f) $\frac{9}{10} + \frac{1}{6}$

$$\frac{27}{30} + \frac{5}{30} = \frac{32}{30}$$

g) $\frac{1}{2} + \frac{6}{11}$

$$\frac{11}{22} + \frac{12}{22} = \frac{23}{22}$$

h) $\frac{3}{4} + \frac{3}{10}$

$$\frac{15}{20} + \frac{6}{20} = \frac{21}{20}$$

i) $\frac{5}{7} + \frac{2}{3}$

$$\frac{15}{21} + \frac{14}{21} = \frac{29}{21}$$

j) $\frac{11}{20} + \frac{7}{30}$

$$\frac{33}{60} + \frac{14}{60} = \frac{47}{60}$$

Homework
Pg 184 # 7-12, Refined

Class/Homework

#2(a,d),

#3(no number lines just add),

#4(don't estimate just add),

#5,

#6,

#7



2. Copy and complete. Replace each \square with a digit to make each equation true.

a) $\frac{3}{12} = \frac{\square}{4}$ b) $\frac{3}{4} = \frac{6}{\square}$ c) $\frac{3}{6} = \frac{\square}{4}$ d) $\frac{6}{8} = \frac{15}{\square}$

3. Add. Sketch a number line to model each sum.

a) $\frac{4}{9} + \frac{1}{3}$ b) $\frac{1}{2} + \frac{1}{3}$ c) $\frac{3}{8} + \frac{3}{2}$ d) $\frac{3}{4} + \frac{1}{6}$

4. Estimate, then add.

a) $\frac{3}{5} + \frac{4}{8}$ b) $\frac{1}{6} + \frac{5}{8}$ c) $\frac{5}{6} + \frac{7}{9}$
 d) $\frac{3}{4} + \frac{4}{7}$ e) $\frac{1}{3} + \frac{2}{5}$ f) $\frac{1}{5} + \frac{5}{6}$

5. One page of a magazine had 2 advertisements.

One was $\frac{1}{8}$ of the page, the other $\frac{1}{16}$.
 What fraction of the page was covered?
 Show your work.

The image shows a magazine page. At the top is a 'Music Review' section with a small illustration of a band. Below this are two advertisements. The first is for 'PETE'S PIECE of PIZZA' with a phone number 'Call: 123-4567'. The second is for 'Bob's Used DVDs' with the slogan 'We Buy and Sell' and an address '134 Main St., 2nd fl.'. Brackets are drawn under each advertisement, with arrows pointing to the fractions $\frac{1}{8}$ and $\frac{1}{16}$ written below them.

6. Which sum is greater? Show your thinking.

$\frac{2}{3} + \frac{5}{6}$ or $\frac{3}{4} + \frac{4}{5}$

7. **Assessment Focus** Three people shared a pie.

Which statement is true? Can both statements be true?

Use pictures to show your thinking.

- a) Edna ate $\frac{1}{10}$, Farrah ate $\frac{3}{5}$, and Ferris ate $\frac{1}{2}$.
- b) Edna ate $\frac{3}{10}$, Farrah ate $\frac{1}{5}$, and Ferris ate $\frac{1}{2}$.