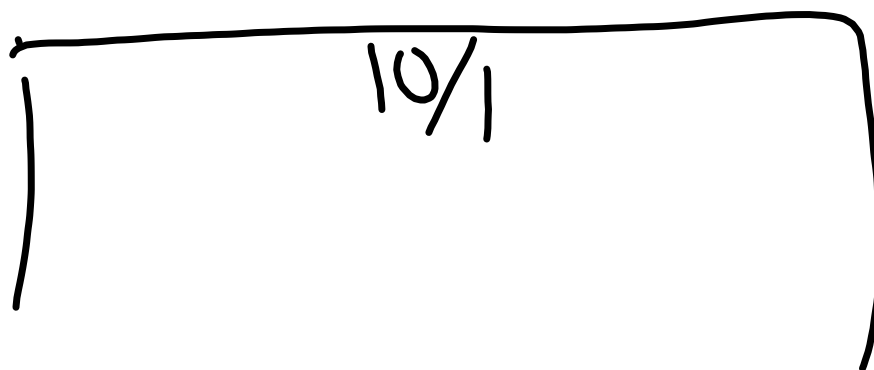


Thursday Quiz on HW 2

Homework Answers on my website.



Adele, Karla, and Lisa are reading the same book. Each has read a different number of pages, as described below.

Adele has read $\frac{5}{8}$ of the book.

Karla has read $\frac{12}{16}$ of the book.

Lisa has read $\frac{13}{24}$ of the book.



$$\frac{13}{24} \cdot \square = \underline{\quad}$$

Help them decide who has the most left to read.

- What denominator could they use to compare the portions they have read?
- Which girl has the largest part left to read? Justify your ideas.
- How many pages could the book have? Be ready to explain your answer.

Adele

$$\frac{5}{8} \cdot \frac{6}{6} = \frac{30}{48}$$

Karla

$$\frac{12}{16} \cdot \frac{3}{3} = \frac{36}{48}$$

Lisa

$$\frac{13}{24} \cdot \frac{2}{2} = \frac{26}{48}$$

Lisa
 24 ↓
 48
 any multiple of these

8, 16, 24, 32, 40, 48

16, 32, 48, ...

24, 48, 72, ...

Three students were adding the fractions $\frac{1}{4} + \frac{5}{12}$ below. They each found a different common denominator:

Lily: $\frac{1}{4} + \frac{5}{12}$

Armando: $\frac{1}{4} + \frac{5}{12}$

Josue: $\frac{1}{4} + \frac{5}{12}$

$\frac{12}{48} + \frac{20}{48}$
 $\frac{32}{48}$

$12 \times \frac{1}{4}$
 $12 \times \frac{5}{12}$
 $\frac{2}{3}$

5×4
 12×4
 $\frac{12}{48} + \frac{20}{48}$

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

$\frac{2}{3}$

$\frac{6}{24} + \frac{10}{24}$
 $\frac{16}{24}$

$\frac{1}{4} \times \frac{6}{6} = \frac{6}{24}$
 $\frac{5}{12} \times \frac{2}{2} = \frac{10}{24}$
 $\frac{6}{24} + \frac{10}{24} = \frac{16}{24}$

a. Who is correct? Can any number be a common denominator? Explain your reasoning.

All are correct.

b. Which of their common denominators is easiest to work with? Why?

12 - it's smaller

c. Find at least three different common denominators you could use to add $\frac{3}{10} + \frac{1}{5}$.

10 20 30 any multiple of 10

Vu needs to add $\frac{3}{8} + \frac{5}{6}$. He knows that he can rewrite each fraction as a part of 48 because 6 and 8 are each factors of 48 in his multiplication table. "Is there a smaller number that could work as a common denominator?" he wonders.

$$\begin{array}{r}
 \boxed{3} \\
 3 \\
 \hline
 24
 \end{array}
 \frac{9}{24}
 +
 \begin{array}{r}
 5 \\
 4 \\
 \hline
 24
 \end{array}
 \frac{15}{24}
 =
 \frac{24}{24}
 =
 \frac{19}{24}$$

8, 16, 24
 6, 12, 18, 24