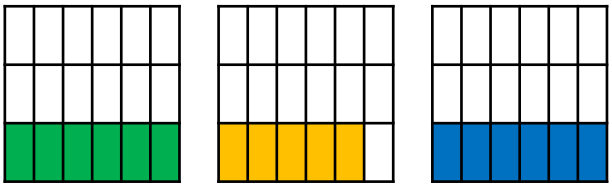
Add 3 or More Fractions

1a. Martha has added three fractions based on the models below.



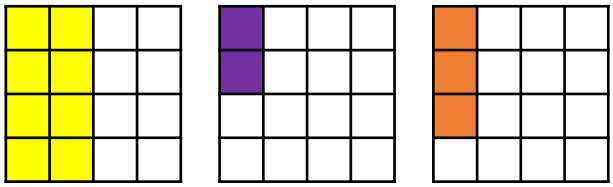
$$\frac{3}{9} + \frac{5}{18} + \frac{6}{18} = \frac{14}{18}$$

Is she correct? Prove it.

D R

Add 3 or More Fractions

1b. Rick has added three fractions based on the models below.



$$\frac{4}{8} + \frac{2}{16} + \frac{3}{16} = \frac{9}{40}$$

Is he correct? Prove it.

D R

2a. Use the clues below to work out which 3 fractions add together to total $\frac{8}{10}$.

- One of the fractions is $\frac{2}{5}$.
- The other two denominators have the same value as each other.
- The other two numerators are odd.

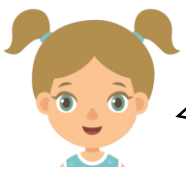
D PS

2b. Use the clues below to work out which 3 fractions add together to total $\frac{10}{16}$.

- One of the fractions is $\frac{2}{8}$.
- The other two denominators have the same value as each other.
- The other two numerators are even.

D PS

3a. True or false? Lola's calculation gives the larger answer.



Lola

$$\frac{1}{7} + \frac{4}{14} + \frac{3}{14}$$

$$\frac{1}{7} + \frac{3}{14} + \frac{3}{14}$$

Ricardo

Explain your answer.

D R

3b. True or false? Sam's calculation gives the larger answer.

Tara

$$\frac{2}{6} + \frac{3}{12} + \frac{5}{12}$$

$$\frac{1}{6} + \frac{6}{12} + \frac{3}{12}$$

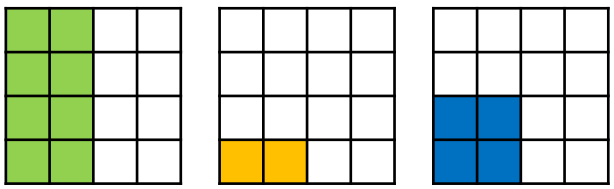
Sam

Explain your answer.

D R

Add 3 or More Fractions

4a. Priya has added three fractions based on the models below.

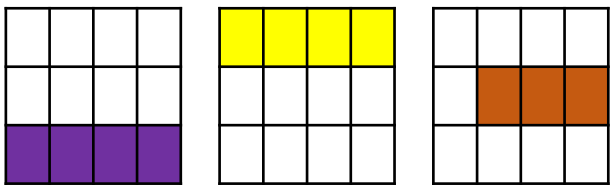


$$\frac{1}{2} + \frac{2}{16} + \frac{1}{4} = \frac{14}{22}$$

Is she correct? Prove it.

E R

4b. Tony has added three fractions based on the models below.



$$\frac{1}{3} + \frac{2}{6} + \frac{2}{12} = \frac{10}{12}$$

Is he correct? Prove it.

E R

5a. Use the clues below to work out which 3 fractions add together to total $\frac{14}{18}$.

- One of the denominators is 18. Another is half of this.
- One of the denominators is a third of 9.
- No numerator is greater than 4.
- Two of the numerators are even and one is half the size of the other.

E PS

5b. Use the clues below to work out which 3 fractions add together to total $\frac{11}{12}$.

- One of the denominators is 12. All of the denominators are even.
- One denominator is half of the other.
- One fraction is a half.
- No numerator is greater than 2.

E PS

6a. True or false? Sue's calculation gives the larger answer.

Sue

$$\frac{1}{5} + \frac{3}{10} + \frac{2}{20}$$

$$\frac{2}{5} + \frac{1}{10} + \frac{6}{20}$$

Joe

Explain your answer.

E R

6b. True or false? Tim's calculation gives the larger answer?

Emmy

$$\frac{1}{7} + \frac{3}{14} + \frac{2}{28}$$

$$\frac{3}{7} + \frac{2}{14} + \frac{1}{28}$$

Tim

Explain your answer.

E R

Add 3 or More Fractions

7a. Rita solved the calculation below.

$$\frac{1}{6} + \frac{1}{3} + \frac{1}{4} + \frac{1}{9} = \frac{32}{36}$$

Is she correct? Prove it.

GD R

Add 3 or More Fractions

7b. Noel has solved the calculation below.

$$\frac{1}{14} + \frac{2}{6} + \frac{1}{2} + \frac{1}{21} = \frac{40}{42}$$

Is he correct? Prove it.

GD R

8a. Use the clues below to work out which 3 fractions add together to total $\frac{25}{36}$.

- One denominator is 36. Two of the denominators are less than 10 but greater than 5.
- The denominators are all different and are factors of 36.
- One of the numerators is 2.
- The other two numerators are odd.

GD PS

8b. Use the clues below to work out which 3 fractions add together to total $\frac{26}{30}$.

- One denominator is 30. The others are different multiples of 5.
- One denominator can go into 30 three times.
- All of the numerators are even.
- No numerator is greater than 4.

GD PS

9a. True or false? Jen's calculation gives the larger answer.

Jen

$\frac{1}{7} + \frac{1}{6} + \frac{2}{3}$

$\frac{1}{6} + \frac{2}{7} + \frac{1}{2}$

Todd

Explain your answer.

GD R

9b. True or false? Kai's calculation gives the larger answer.

Rosie

$\frac{1}{3} + \frac{1}{6} + \frac{1}{5}$

$\frac{1}{6} + \frac{1}{2} + \frac{1}{5}$

Kai

Explain your answer.

GD R