Add 3 or More Fractions

5a. Group the equivalent fractions.

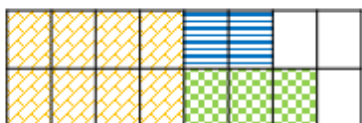$$\frac{2}{7} \qquad \frac{1}{7} \qquad \frac{4}{7}$$

$$\frac{8}{56} \qquad \frac{6}{21} \qquad \frac{16}{28}$$

5 VF

6a. True or false? Use the bar model to help you.

$$\frac{1}{2} + \frac{3}{16} + \frac{1}{8} = \frac{12}{16}$$

5 VF

7a. Complete the calculation.

$$\frac{2}{9} + \frac{1}{3} + \frac{3}{18} = \frac{\square}{\square}$$

5 VF

8a. Match the calculations to the correct answers.

A) $\dfrac{2}{4} + \dfrac{2}{16} + \dfrac{1}{8} =$ $\dfrac{12}{16}$

$\dfrac{11}{16}$

B) $\dfrac{2}{12} + \dfrac{1}{3} + \dfrac{2}{6} =$ $\dfrac{10}{12}$

5 VF

Add 3 or More Fractions

4a. Sue and Joe are adding 3 different fractions. Sue thinks her answer will be the biggest fraction.

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

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

Is she correct? Explain why.

5 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.

5 PS

6a. Priya has added three fractions based on the bar models below.

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

Is she correct? Prove it.

5 R

Add 3 or More Fractions

9a. Group the equivalent fractions.

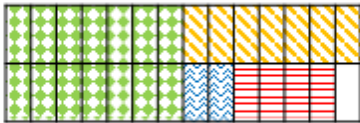$$\frac{3}{11} \qquad \frac{5}{8} \qquad \frac{4}{6}$$

$$\frac{32}{48} \qquad \frac{21}{77} \qquad \frac{45}{72}$$

5 VF

10a. True or false? Use the bar model to help you.

$$\frac{1}{2} + \frac{2}{28} + \frac{1}{4} + \frac{1}{7} = \frac{27}{28}$$

5 VF

11a. Complete the calculation.

$$\frac{1}{3} + \frac{6}{30} + \frac{1}{15} + \frac{3}{10} = \frac{\square}{\square}$$

5 VF

12a. Match the calculations to the correct answers.

A) $\dfrac{5}{24} + \dfrac{3}{6} + \dfrac{1}{4} =$

B) $\dfrac{1}{4} + \dfrac{1}{3} + \dfrac{2}{24} =$

$$\frac{16}{24}$$

$$\frac{20}{24}$$

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

5 VF

Add 3 or More Fractions

7a. Jen and Todd are adding 3 different fractions. Jen thinks her answer will be the biggest fraction.

Jen: $\dfrac{1}{7} + \dfrac{3}{28} + \dfrac{1}{4}$

Todd: $\dfrac{1}{14} + \dfrac{2}{7} + \dfrac{1}{2}$

Is she correct? Explain why.

5 R

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

- 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.

5 PS

9a. Rita has added four fractions based on the bar model below.
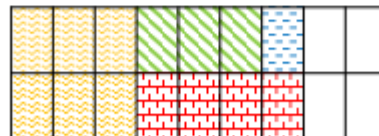
$$\frac{1}{6} + \frac{1}{3} + \frac{1}{18} + \frac{2}{9} = \frac{5}{18}$$

Is she correct? Prove it.

5 R

Answers

Step 11, 2 stars Varied Fluency	Step 11, 2 stars Reasoning
5a. $\frac{1}{7} = \frac{8}{56}$, $\frac{2}{7} = \frac{6}{21}$, $\frac{4}{7} = \frac{16}{28}$ 6a. False. The correct answer is $\frac{13}{16}$. 7a. $\frac{13}{18}$ 8a. A) $\frac{12}{16}$ B) $\frac{10}{12}$	4a. No. Joe has $\frac{16}{20}$ which is more than $\frac{12}{20}$. 5a. $\frac{4}{18} + \frac{2}{9} + \frac{1}{3} = \frac{14}{18}$ 6a. Priya is incorrect as she has added the denominators. The correct answer is $\frac{14}{16}$.
Step 11, 3 stars Varied Fluency	**Step 11, 3 stars Reasoning**
9a. $\frac{3}{11} = \frac{21}{77}$, $\frac{5}{8} = \frac{45}{72}$, $\frac{32}{48} = \frac{4}{6}$ 10a. True 11a. $\frac{27}{30}$ 12a. A) $\frac{23}{24}$ B) $\frac{16}{24}$	7b. Kai is correct as $\frac{10}{12}$ is more than $\frac{13}{24}$. 8b. $\frac{2}{30} + \frac{4}{10} + \frac{2}{5} = \frac{26}{30}$ 9b. Noel is incorrect as he has added the denominators. The correct answer is $\frac{20}{42}$.