

Add Fractions and Mixed Numbers

1a. Akbar is describing the method he will use for the calculation below.

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



I must add the fractions which make 1 and 2 eighths. I then add 3 which equals 5 and 2 eighths.

Do you agree? Explain why.

R

1b. Juliet is describing the method she will use for the calculation below.

$$5\frac{7}{11} + \frac{9}{11}$$



I must add the fractions first which equals 5 elevenths. I must then add the wholes which equals 5 and 5 elevenths.

Do you agree? Explain why.

R

2a. Isobel is solving the calculation below.

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

$$\frac{3}{5} + \frac{4}{5} = \frac{7}{5}$$

$$\frac{7}{5} + 8 = 8\frac{7}{5}$$

Her friend Nellie thinks she hasn't partitioned correctly. Who is correct? Convince me.

R

2b. Adam is solving the calculation below.

$$3\frac{8}{12} + \frac{9}{12}$$

$$\frac{8}{12} + \frac{9}{12} = \frac{16}{12}$$

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

His friend Glenn thinks he hasn't added correctly. Who is correct? Convince me.

R

3a. Polly has the mixed number below.

$$14\frac{2}{9}$$

Find 3 calculations that will total her mixed number.

PS

3b. Chad has the mixed number below.

$$11\frac{3}{10}$$

Find 3 calculations that will total his mixed number.

PS

Add Fractions and Mixed Numbers

1a. No, I disagree because the value of his calculation is $4\frac{3}{8}$. Akbar hasn't partitioned and calculated the fractions correctly. $\frac{6}{8} + \frac{5}{8} = 1\frac{3}{8}$.

1b. No, I disagree because the value of her calculation is $6\frac{5}{11}$. Juliet didn't add the whole from her fraction of $\frac{7}{11} + \frac{9}{11} = 1\frac{5}{11}$.

2a. Nellie is correct because Isobel has written an improper fraction with a mixed number. $\frac{3}{5} + \frac{4}{5} = 1\frac{2}{5}$. $1\frac{2}{5} + 8 = 9\frac{2}{5}$

2b. Glenn is correct because Adam has not solved $\frac{8}{12} + \frac{9}{12}$ correctly. $\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$.
 $\frac{17}{12} = 1\frac{5}{12}$. $1\frac{5}{12} + 3 = 4\frac{5}{12}$

3a. Various answers, for example: $13\frac{8}{9} + \frac{3}{9}$; $14\frac{1}{9} + \frac{1}{9}$; $13\frac{6}{9} + \frac{5}{9}$

3b. Various answers, for example: $10\frac{4}{10} + \frac{9}{10}$; $11 + \frac{3}{10}$; $10\frac{7}{10} + \frac{6}{10}$