

Challenge questions – Fluency

7a. Which calculation gives the answer below?

$$3 \frac{5}{12}$$

- A. $3 \frac{4}{6} - \frac{2}{4}$ B. $3 \frac{5}{6} - \frac{3}{4}$ C. $3 \frac{4}{6} - \frac{1}{4}$



VF

8a. Find the difference between the fractions.

A. $\frac{2}{6} \quad 4 \frac{3}{4}$

B. $2 \frac{6}{8} \quad \frac{4}{6}$

Write your answers as mixed numbers in their simplest form.



VF

9a. Tick the calculation with the greatest answer.

A. $6 \frac{4}{5} - \frac{1}{3}$

B. $6 \frac{7}{10} - \frac{2}{3}$

Application questions

Amir is attempting to solve $2 \frac{5}{14} - \frac{2}{7}$

Here is his working out:



$$2 \frac{5}{14} - \frac{2}{7} = 2 \frac{3}{7}$$

Do you agree with Amir?
Explain your answer.

Challenge questions – problem solving

7a. Jane has solved the calculation below.

$$3 \frac{9}{10} - \frac{1}{4} = 3 \frac{8}{10}$$

Is she correct?
Explain any errors she has made.



R

8a. A family have $3 \frac{7}{8}$ pizzas left over from their takeaway on Saturday.

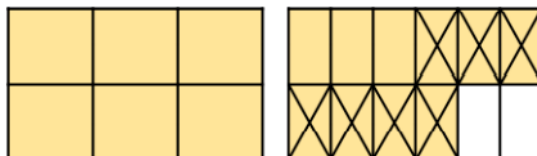
Ruby eats $\frac{4}{6}$ of the left overs on Sunday for her lunch.

What fraction of the pizza is still left over?

9a. Find the route across the grid, from left to right, subtracting $\frac{2}{8}$ every time.

$3 \frac{3}{6}$	$3 \frac{2}{3}$	$3 \frac{1}{3}$	$3 \frac{4}{18}$
$3 \frac{5}{6}$	$3 \frac{7}{12}$	$3 \frac{7}{8}$	$3 \frac{1}{12}$
$3 \frac{4}{6}$	$3 \frac{5}{18}$	$3 \frac{8}{12}$	$3 \frac{3}{8}$

Here is Rosie's method.
What is the calculation?



Can you find more than one answer?
Why is there more than one answer?

7a. C

8a. A. $4\frac{5}{12}$; B. $2\frac{1}{12}$

9a. A

7a. No, she should be left with $3\frac{13}{20}$ but she has subtracted without finding the common denominator.

8a. $3\frac{5}{24}$

9a.

$3\frac{3}{6}$	$3\frac{2}{3}$	$3\frac{1}{3}$	$3\frac{4}{18}$
$3\frac{5}{6}$	$3\frac{7}{12}$	$3\frac{7}{8}$	$3\frac{1}{12}$
$3\frac{4}{6}$	$3\frac{5}{18}$	$3\frac{8}{12}$	$3\frac{3}{8}$

Application questions

Amir is attempting to solve $2\frac{5}{14} - \frac{2}{7}$

Here is his working out:



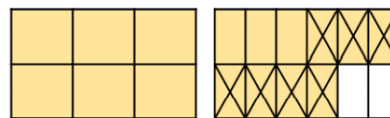
$$2\frac{5}{14} - \frac{2}{7} = 2\frac{3}{7}$$

Do you agree with Amir?
Explain your answer.

Possible answer:

Amir is wrong because he hasn't found a common denominator when subtracting the fractions he has just subtracted the numerators and the denominators. The correct answer is $2\frac{1}{14}$

Here is Rosie's method.
What is the calculation?



Can you find more than one answer?
Why is there more than one answer?

The calculation could be $1\frac{5}{6} - \frac{7}{12}$ or $1\frac{10}{12} - \frac{7}{12}$

There is more than one answer because five sixths and ten twelfths are equivalent. Children should be encouraged to write the question as $1\frac{5}{6} - \frac{7}{12}$ so that all fractions are in their simplest