Maths Extension Questions - 22.02.21 - 26.02.21

Rosie and Whitney are solving:

$$\frac{4}{7}+\frac{2}{7}$$

Rosie says,

The answer is $\frac{6}{7}$

Whitney says,

The answer is $\frac{6}{14}$

Who do you agree with?
Explain why.

Mo and Teddy share these chocolates.

They both eat an odd number of chocolates.
Complete this number sentence to show what fraction of the chocolates they each could have eaten.

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{12}{12}$$

Alex is adding fractions.

$$\frac{3}{9}+\frac{2}{9}=\frac{5}{18}$$

Is she correct? Explain why.

How many different ways can you find to solve the calculation?

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{11}{9}$$

Mo and Teddy are solving:

$$\frac{6}{13}+\frac{5}{13}+\frac{7}{13}$$

Mo

The answer is 1 and $\frac{5}{13}$

Teddy

The answer is $\frac{18}{13}$

Who do you agree with?
Explain why.

Find the missing fractions:

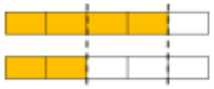
$$\frac{7}{7}-\frac{3}{7}=\frac{2}{7}+\frac{\square}{7}$$

$$\frac{\square}{9}-\frac{5}{9}=\frac{4}{9}-\frac{2}{9}$$

Jack and Annie are solving $\frac{4}{5}-\frac{2}{5}$

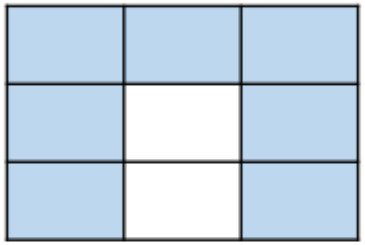
Jack's method:

Annie's method:



They both say the answer is two fifths.
Can you explain how they have found their answers?

How many fraction addition and subtractions can you make from this model?



Rosie and Whitney are solving:

$$\frac{4}{7}+\frac{2}{7}$$

Rosie says,

The answer is $\frac{6}{7}$

Whitney says,

The answer is $\frac{6}{14}$

Who do you agree with?
Explain why.

Rosie is correct. Whitney has made the mistake of also adding the denominators. Children could prove why Whitney is wrong using a bar model or strip diagram.

Mo and Teddy share these chocolates.

They both eat an odd number of chocolates.
Complete this number sentence to show what fraction of the chocolates they each could have eaten.

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{12}{12}$$

Possible answers:

$\frac{1}{12}+\frac{11}{12}$

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

$\frac{5}{12}+\frac{7}{12}$

(In either order)

Alex is adding fractions.

$$\frac{3}{9}+\frac{2}{9}=\frac{5}{18}$$

Is she correct? Explain why.

Alex is incorrect. Alex has added the denominators as well as the numerators.

How many different ways can you find to solve the calculation?

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{11}{9}$$

Any combination of ninths where the numerators total 11.

Mo and Teddy are solving:

$$\frac{6}{13}+\frac{5}{13}+\frac{7}{13}$$

Mo

The answer is 1 and $\frac{5}{13}$

Teddy

The answer is $\frac{18}{13}$

Who do you agree with?
Explain why.

They are both correct.
Mo has added $\frac{6}{13}+\frac{7}{13}$ to make 1 whole and then added $\frac{5}{13}$

Find the missing fractions:

$$\frac{7}{7}-\frac{3}{7}=\frac{2}{7}+\frac{\square}{7}$$

$$\frac{\square}{9}-\frac{5}{9}=\frac{4}{9}-\frac{2}{9}$$

$\frac{7}{7}-\frac{3}{7}=\frac{2}{7}+\frac{2}{7}$

$\frac{7}{9}-\frac{5}{9}=\frac{4}{9}-\frac{2}{9}$

Jack and Annie are solving $\frac{4}{5}-\frac{2}{5}$

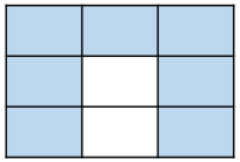
Jack's method:

Annie's method:

They both say the answer is two fifths.
Can you explain how they have found their answers?

Jack has taken two fifths away. Annie has found the difference between four fifths and two fifths.

How many fraction addition and subtractions can you make from this model?



There are lots of calculations children could record. Children may even record calculations where there are more than 2 fractions e.g. $\frac{3}{9}+\frac{1}{9}+\frac{3}{9}=\frac{7}{9}$
Children may possibly see the red representing one fraction and the white another also.