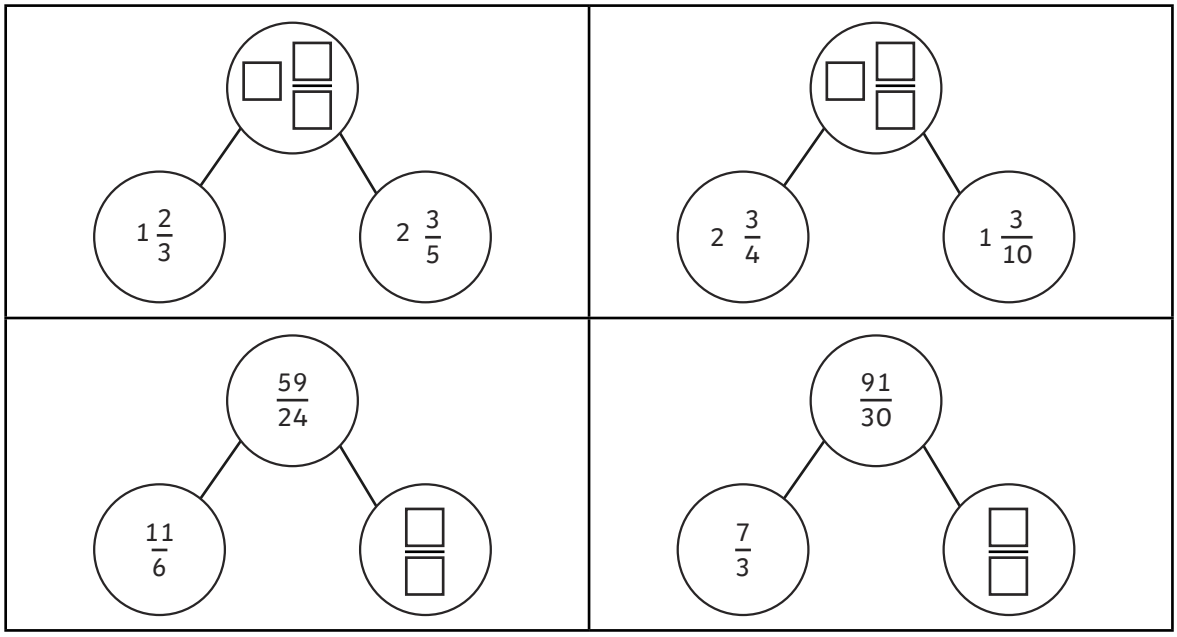
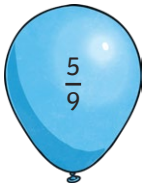
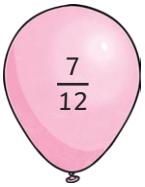
1) Complete these part-whole models. Show your working out using common denominators. Simplify fractions where possible.



2) Otto the clown added up the fractions on his three balloons to make a total of $1\frac{29}{36}$, but the third balloon has popped! He remembers that it had a different denominator to the other two balloons. Can you work out what fraction was on it?

		
five ninths	seven twelfths	

1)

The numerator hidden by the balloons in each calculation is a 6.

$\frac{5}{8} + \frac{\square}{9} = 1\frac{7}{24}$	$\frac{7}{9} + \frac{\square}{12} = 1\frac{5}{18}$	$\frac{7}{4} + \frac{\square}{10} = 2\frac{7}{20}$

Prove if this statement is correct. Show your reasoning.

2)

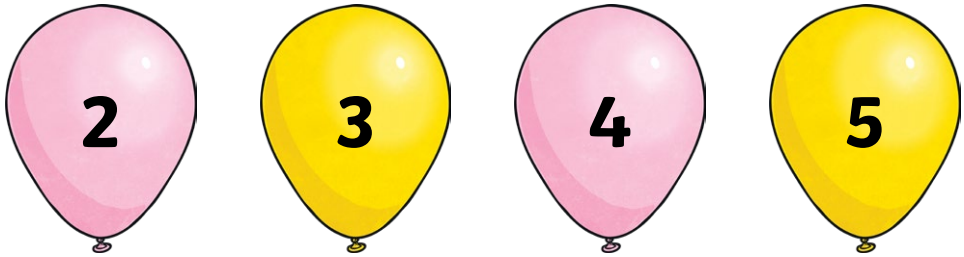
$1\frac{6}{15} + 1\frac{9}{24} = 2\frac{31}{40}$	$1\frac{8}{20} + 1\frac{12}{32} = 2\frac{31}{40}$

What is the same about these calculations?

What is different?

Explain your reasoning.

1)



$$\frac{\square}{8} + \frac{\square}{12} + \frac{\square}{6} =$$

Using the balloons as numerators, how many calculations can you find that have an answer between 1 and 2? You can only use each balloon once in each calculation. Show your working out using common denominators. How will you know that you have found all the possible answers?