Discussion Problems
Step 3: Mixed Numbers to Improper Fractions

Teaching Note: For Q1, an A3 copy on card and scissors may be necessary. Children may need help constructing the spinner.

National Curriculum Objectives:

Mathematics Year 5: (5F2a) Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 5 Fractions resources.

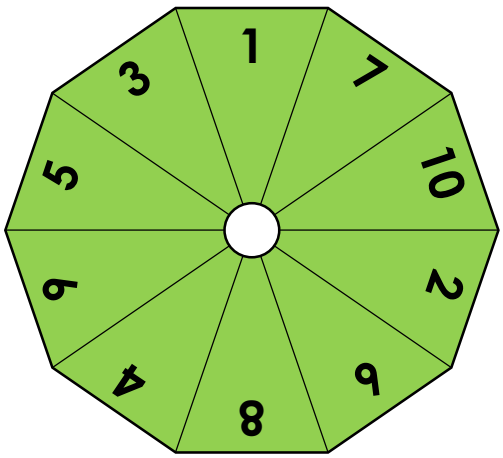
Did you like this resource? Don't forget to review it on our website.

Mixed Numbers to Improper Fractions

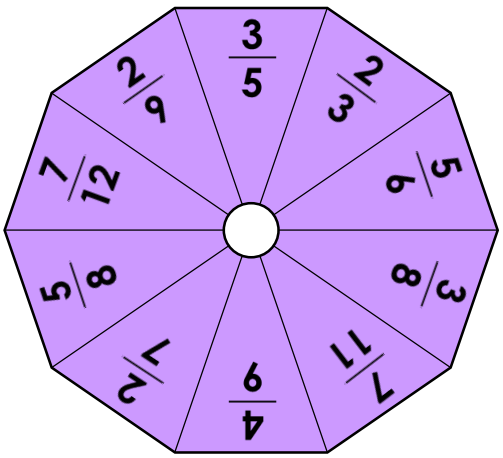
1. With a partner, play the game below.

Cut the spinners out and take it in turns to spin!
Spinner 1 gives you the whole number.
Spinner 2 gives you the fraction.
A point is received when the mixed number you have created with your two spins is converted into the corresponding improper fraction correctly.
The person with the highest number of points after 10 spins is the winner.

Spinner 1



Spinner 2



DP

2. Convert the mixed numbers to improper fractions.

$3\frac{2}{7}$ $4\frac{6}{11}$ $5\frac{4}{8}$ $2\frac{7}{9}$ $5\frac{1}{3}$ $4\frac{5}{6}$

Investigate how the improper fractions you have after converting the mixed numbers could be sorted into the Carroll diagram and complete the headings.

DP

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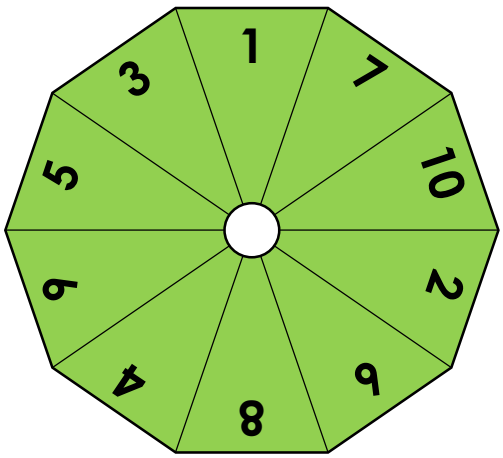
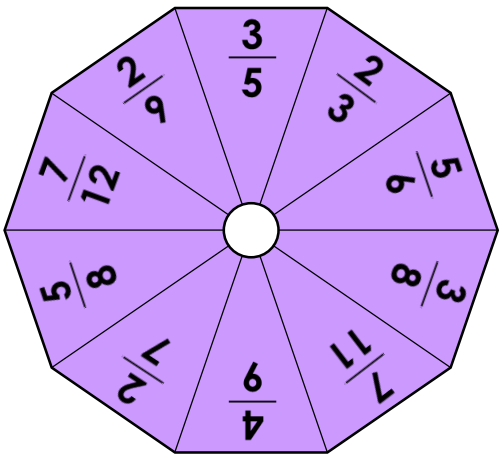
Various answers, for example:

$3\frac{2}{7} = \frac{23}{7}$

Spinner 1



Spinner 2



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	Even numerator	Odd numerator
Numerator equal to or less than 25	$\frac{16}{3}$	$\frac{23}{7}$ $\frac{25}{9}$
Numerator more than 25	$\frac{50}{11}$ $\frac{44}{8}$	$\frac{29}{6}$

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DP