Discussion Problems
Step 20: Using Fractions as Operators

For Q1, an A3 copy on card and scissors may be necessary.

National Curriculum Objectives:

Mathematics Year 5: (5C8c) Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

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 Fraction resources.

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

Using Fractions as Operators

1. The aim of this game is to make a set of 3 cards: 2 equal calculations and their matching answer.

- Shuffle the pack of cards. Deal 3 each.
- Place the remaining cards face down in a pile. The first player takes a card from the top.
- They can keep it or replace it – face up – next to the pile.
- If they keep it, then they must place another of your cards – face up – next to the pile.
- The next player can choose to take the top card from either pile.
- Players must always keep 3 cards in their hand.
- Players take it in turns until one of them has collected a matching set of 3 cards.

56 groups of $\frac{7}{8}$	$\frac{7}{4}$ of 48	49 x $\frac{9}{7}$	72
84	$\frac{8}{6}$ of 54	$\frac{7}{8}$ of 56	48 lots of $\frac{7}{4}$
$\frac{9}{7}$ of 49	49	54 x $\frac{8}{6}$	63

DP

2. Use the number cards to make the statement correct.
You can use the number cards more than once. You can use improper fractions.
Find as many possibilities as you can.

$$\square \times \frac{\square}{\square} = \frac{\square}{\square} \text{ of } \square = \square$$

4	8	24	32	36	16	6	3

DP

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$\frac{7}{8}$ of 56	48 lots of $\frac{7}{4}$	$\frac{9}{7}$ of 49	54 x $\frac{8}{6}$
49	84	63	72

DP

2. Use the number cards to make the statement correct.
You can use the number cards more than once. You can use improper fractions.
Find as many possibilities as you can.
Various answers, for example:

$$\boxed{24} \times \frac{\boxed{4}}{\boxed{3}} = \frac{\boxed{4}}{\boxed{3}} \text{ of } \boxed{24} = \boxed{32}$$

4	8	24	32	36	16	6	3

DP