

A. Teaching basic fraction concepts and operations using arc sectors

5. Subtraction of fractions with equal denominators or such that one denominator is a multiple of the other

1 Group work

- Put on your desk sectors of fractions with denominators 2, 4 and 8.
- Suggest a fraction subtraction exercise that you know how to solve using the sectors on your desk.

Write your subtraction exercise and its result: _____

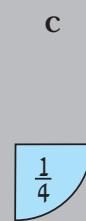
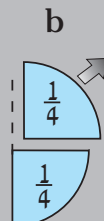
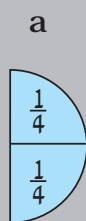
- Can you construct another subtraction exercise using the sectors on your desk? Solve your exercise (use the sectors for solving or for checking the result): _____

2 Subtracting fractions with equal denominators

Follow the example and subtract using sectors.

Example

$$\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$



3 Subtracting fractions such that one denominator is a multiple of the other

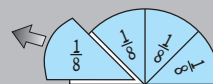
Example

$$\frac{1}{2} - \frac{1}{8} = \boxed{}$$

- a. Take one sector of $\frac{1}{2}$



- b. Cover $\frac{1}{2}$ with sectors of $\frac{1}{8}$ and subtract:



Describe the sector construction in mathematical language:

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