

## E. Teaching how to find a common denominator using squares

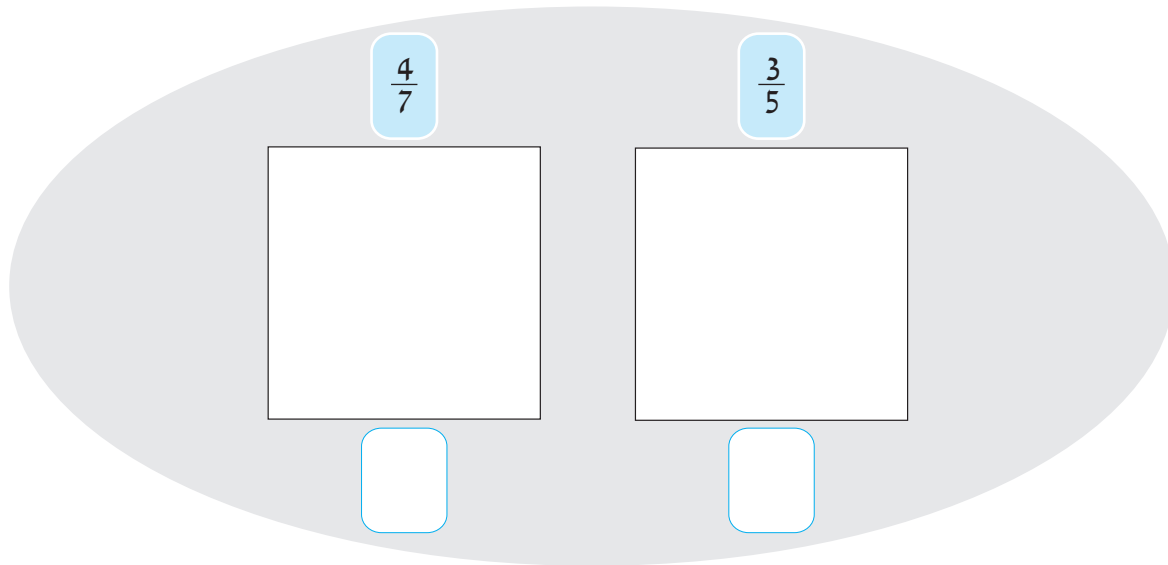
### 25. Comparing fractions by common denominator

Which fraction is greater?

Or are they equal?

$$\frac{4}{7} \quad \dots \quad \frac{3}{5}$$

a. Draw each of the fractions using the partitioning squares:



- b. Expand  $\frac{3}{5}$  by the **expansion factor 7**. Use the partitioning squares. Write the fraction you get under its drawing.
- c. Expand  $\frac{4}{7}$  by the **expansion factor 5**. Use the partitioning squares. Write the fraction you get under its drawing.
- d. **Check**: did you get fractions with equal **denominators**?
- e. Can you tell now which fraction is greater? If you can, write it:

$$\frac{4}{7} \quad \dots \quad \frac{3}{5}$$

- Discussion**
- How did you use expansions to decide which fraction is the greater?
  - How and why did you get fractions with **equal denominators**?

When we have two fractions with different denominators, we can expand them to get equal denominators :

The expansion factor for each fraction is the denominator of the other fraction.