

Ordering a set of fractions

CURRICULUM ALIGNMENT

NUM.FRC.4a

explore (model, compare and convert) the relationships between fractions, decimals and percentages.

INTERACTIVES **Fraction Strips** · challenge, display, explore

WHAT THIS LESSON TEACHES

To order a set of fractions, rewrite every fraction over one shared bottom number so the slices are the same size. Then count the top numbers to line them up from smallest to biggest.

→ $1/2$, $1/3$ and $5/6$ all fit over sixths: $3/6$, $2/6$ and $5/6$.

→ $3/6$, $2/6$, $5/6$ in order becomes $2/6$, $3/6$, $5/6$ so $1/3$, $1/2$, $5/6$.

MODEL THIS ON THE BOARD

ORDERING THE CAKE SLICES

- 1 The set is $1/4$, $3/8$, $1/2$ and $5/8$. A shared bottom number is 8.
- 2 Rewrite $1/4$ as $2/8$ (multiply top and bottom by 2).
- 3 Rewrite $1/2$ as $4/8$ (multiply top and bottom by 4).
- 4 $3/8$ stays $3/8$ and $5/8$ stays $5/8$.
- 5 Order the tops 2, 3, 4, 5 to get $1/4$, $3/8$, $1/2$, $5/8$.

ANSWER KEY

b) 1, 2, 3, 4

c) $1/8$, $1/4$, $3/8$, $7/8$ Q1: $1/5$, $2/7$, $4/5$ Q2: $1/5$, $3/10$, $4/5$, $9/10$ Q3: $2/5$, $1/2$, $3/5$ Q4: $2/5$, $1/2$, $3/5$, $7/10$

a) Always : Equal-sized slices mean the tops alone show which fraction is larger.

b) Sometimes : True for $1/2$, $1/3$ and $1/8$; false for $1/2$, $1/3$ and $7/8$, where $7/8$ is the largest.c) Always : $3/6$ is clearly bigger than $2/6$.

d) Never : Bottom numbers rising does not guarantee the fractions themselves rise.

EXTENSION SHEET · STRETCH ANSWERS

S1: $2/5 < 7/10 < 9/10$ S2: $1/5 < 3/4 < 7/8$