Write these fractions in order of size, starting with the smallest:

$$\frac{1}{2} \qquad \frac{3}{4} \qquad \frac{2}{6} \qquad \frac{2}{3}$$

There are several ways that fractions can be ordered. This method uses a common denominator (the same bottom number on each fraction).

Stage 1: decide what the denominator should be. This is a number which is a multiple of all the denominators shown. Try to find the smallest to make the working out easier.

8 is no good as 3 does not go into it exactly. 9, 10 and 11 don't work either, but 12 does!   2 x 6 = 12;   3 x 4 = 12,   4 x 3 = 12   and   6 x 2 = 12.

Stage 2: convert all the fractions so that they have a denominator of 12. You can do this by multiplying the top and bottom of the fraction by the same number.

| $\frac{1}{2}$ ˣ⁶ ˣ⁶ $\frac{6}{12}$ | $\frac{3}{4}$ ˣ³ ˣ³ $\frac{9}{12}$ | $\frac{2}{6}$ ˣ² ˣ² $\frac{4}{12}$ | $\frac{2}{3}$ ˣ⁴ ˣ⁴ $\frac{8}{12}$ |

Stage 3: now it is easy to see which is the smallest by looking at the top numbers (numerators) of the fractions you have converted into twelfths.

| $\frac{2}{6}$ $\frac{4}{12}$ | $\frac{1}{2}$ $\frac{6}{12}$ | $\frac{2}{3}$ $\frac{8}{12}$ | $\frac{3}{4}$ $\frac{9}{12}$ |

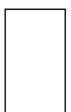# Ordering fractions

Write these sets of fractions in order of size, starting with the smallest.

1. $\dfrac{3}{4}$ $\quad$ $\dfrac{7}{8}$ $\quad$ $\dfrac{3}{8}$ $\quad$ $\dfrac{1}{2}$

2. $\dfrac{7}{9}$ $\quad$ $\dfrac{2}{3}$ $\quad$ $\dfrac{4}{9}$ $\quad$ $\dfrac{1}{3}$

3. $\dfrac{3}{5}$ $\quad$ $\dfrac{4}{10}$ $\quad$ $\dfrac{1}{5}$ $\quad$ $\dfrac{3}{10}$

4. $\dfrac{3}{4}$ $\quad$ $\dfrac{1}{12}$ $\quad$ $\dfrac{3}{6}$ $\quad$ $\dfrac{1}{3}$

Answers

1.
$$\frac{3}{8} \qquad \frac{1}{2} \qquad \frac{3}{4} \qquad \frac{7}{8}$$

2.
$$\frac{1}{3} \qquad \frac{4}{9} \qquad \frac{2}{3} \qquad \frac{7}{9}$$

3.
$$\frac{1}{5} \qquad \frac{3}{10} \qquad \frac{4}{10} \qquad \frac{3}{5}$$

4.
$$\frac{1}{12} \qquad \frac{1}{3} \qquad \frac{3}{6} \qquad \frac{3}{4}$$