Fraction Division

1 Calculate the following, simplifying your answer fully:

(a) $\frac{1}{5} \times \frac{3}{4}$ (b) $\frac{2}{5} \times \frac{1}{6}$

(c) $8 \times \frac{3}{4}$ (d) $1\frac{1}{5} \times 2\frac{11}{12}$

2 Write down the reciprocal of each of the following:

(a) $\frac{1}{7}$ (b) 5

(c) $\frac{3}{7}$ (d) $1\frac{2}{7}$

3 Calculate the following, simplifying your answer fully:

(a) $\frac{3}{5} \div \frac{2}{5}$ (b) $\frac{4}{5} \div \frac{2}{7}$

(c) $3 \div \frac{1}{7}$ (d) $\frac{1}{7} \div 3$

(e) $1\frac{1}{3} \div \frac{1}{6}$ (f) $2\frac{2}{5} \div 2\frac{1}{12}$

4 Using mental calculation, write the following calculations in ascending order:

$4 \div \frac{1}{4}$ $\frac{1}{4} \div 4$ $4 \div 4$

$\frac{1}{4} \div \frac{1}{4}$ $\frac{1}{4} \div \frac{1}{8}$ $\frac{1}{8} \div \frac{1}{4}$

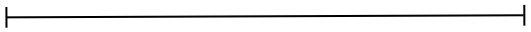
5 There is $\frac{10}{11}$ of a cake leftover at a party.

It is decided to share it between 5 people.

What fraction of the cake does each of the people receive?

6 Use this empty number line to show why the following calculation is correct.

$$\frac{5}{6} \div \frac{1}{12} = 10$$



7 Investigate the following sequence of calculations. What pattern do you seen in your answers?

$\frac{2}{5} \div \frac{1}{5}$

$\frac{3}{5} \div \frac{2}{5}$

$\frac{4}{5} \div \frac{3}{5}$

$\frac{5}{5} \div \frac{4}{5}$

Now try these:

$\frac{27}{71} \div \frac{19}{71}$ $\frac{a}{b} \div \frac{c}{b}$

8 Write fractions in each box to make the calculations true:

$\square \div \square = 1$

$\square \div \square = \frac{1}{2}$

$\square \div \square = \frac{2}{9}$

9 Somebody claims that:

"Division makes things smaller"

Decide if this is always, sometimes or never true. Give some examples to support your decision.