ACTIVITY 4.2 *Equivalent Forms*

Pupils are allowed to use any one- or two-digit numbers. They have to decide how many different ways they can write the given fraction. Some examples are stated below; complete the table for each of these fractions and choose other starting fractions (which must *start* in their simplest form).

Starting Fraction	*Equivalent Fractions*	*Number of Equivalent Fractions (including original fraction)*
$\frac{1}{2}$	$\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}, \ldots, \ldots, \ldots, \frac{49}{98}$	49
$\frac{1}{3}$	$\frac{2}{6}, \frac{3}{9}, \frac{4}{12}, \ldots\ldots\ldots\ldots$	
$\frac{3}{4}$	$\frac{6}{8}, \frac{9}{12}, \frac{12}{16}, \ldots\ldots\ldots\ldots$	
$\frac{2}{5}$	$\frac{4}{10}, \frac{6}{15}, \ldots\ldots\ldots\ldots$	
$\frac{5}{8}$	$\frac{10}{16}, \ldots\ldots\ldots\ldots$	
$\frac{1}{17}$	$\ldots\ldots\ldots\ldots$	

Extension

Find the rule for determining how many equivalent fractions can be written using only one- and two-digit numbers.

ACTIVITY 4.3 *Dominoes, Sheet 1*

0.375	0.3	0.6	0.75
0.375	0.3	0.6	0.75
$\frac{2}{5}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{2}$
$\frac{2}{5}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{2}$
0.375	0.3	0.6	0.75

0.1	0.8	0.6	0.125
0.1	0.8	0.6	0.125
$\frac{3}{5}$	$\frac{1}{5}$	$\frac{3}{4}$	$\frac{1}{2}$
$\frac{3}{5}$	$\frac{1}{5}$	$\frac{3}{4}$	$\frac{1}{2}$
0.1	0.8	0.6	0.125

0.8	0.625	0.5	0.3
0.8	0.625	0.5	0.3
$\frac{3}{5}$	$\frac{2}{5}$	$\frac{3}{4}$	$\frac{1}{4}$
$\frac{3}{5}$	$\frac{2}{5}$	$\frac{3}{4}$	$\frac{1}{4}$
0.8	0.625	0.5	0.3

ACTIVITY 4.4 *Dominoes, Sheet 2*

0.375	0.375	$\frac{1}{10}$
$\frac{1}{10}$	$\frac{1}{10}$	
0.2	0.2	$\frac{5}{8}$
$\frac{5}{8}$	$\frac{5}{8}$	
0.5	0.5	$\frac{1}{8}$
$\frac{1}{8}$	$\frac{1}{8}$	
0.75	0.75	$\frac{4}{5}$
$\frac{4}{5}$	$\frac{4}{5}$	

0.1	0.1	$\frac{3}{10}$
$\frac{3}{10}$	$\frac{3}{10}$	
0.25	0.25	$\frac{5}{8}$
$\frac{5}{8}$	$\frac{5}{8}$	
0.125	0.125	$\frac{3}{8}$
$\frac{3}{8}$	$\frac{3}{8}$	
0.625	0.625	$\frac{4}{5}$
$\frac{4}{5}$	$\frac{4}{5}$	

0.25	0.25	$\frac{3}{10}$
$\frac{3}{10}$	$\frac{3}{10}$	
0.4	0.4	$\frac{1}{10}$
$\frac{1}{10}$	$\frac{1}{10}$	
0.4	0.4	$\frac{3}{8}$
$\frac{3}{8}$	$\frac{3}{8}$	
0.2	0.2	$\frac{1}{8}$
$\frac{1}{8}$	$\frac{1}{8}$	

ACTIVITIES 4.2 - 4.3 *Notes and Solutions*

Notes and solutions given only where appropriate.

4.2 33, 24, 19, 12, 5

Extension *Rule*: Integer Part of $\frac{99}{\text{Denominator}}$

4.3 Use these to play dominoes (in pairs) with the usual rules.