

Common Fractions as Decimals

Memorise the decimal representations of these common fractions.

1																	
$\frac{1}{2} = 0.5$					$\frac{2}{2} = 1$												
$\frac{1}{3} = 0.33333 \dots$			$\frac{2}{3} = 0.6666 \dots$			$\frac{3}{3} = 1$											
$\frac{1}{4} = 0.25$		$\frac{2}{4} = \frac{1}{2} = 0.5$		$\frac{3}{4} = 0.75$		$\frac{4}{4} = 1$											
$\frac{1}{5} = 0.2$		$\frac{2}{5} = 0.4$		$\frac{3}{5} = 0.6$		$\frac{4}{5} = 0.8$		$\frac{5}{5} = 1$									
$\frac{1}{6} = 0.1666 \dots$		$\frac{2}{6} = 0.333 \dots$		$\frac{3}{6} = 0.5$		$\frac{4}{6} = 0.666 \dots$		$\frac{5}{6} = 0.8333 \dots$		$\frac{6}{6} = 1$							
$\frac{1}{7} = 0.142 \dots$		$\frac{2}{7} = 0.285 \dots$		$\frac{3}{7} = 0.428 \dots$		$\frac{4}{7} = 0.571 \dots$		$\frac{5}{7} = 0.714 \dots$		$\frac{6}{7} = 0.857 \dots$	$\frac{7}{7} = 1$						
$\frac{1}{8} = 0.125$		$\frac{2}{8} = 0.25$		$\frac{3}{8} = 0.375$		$\frac{4}{8} = 0.5$		$\frac{5}{8} = 0.625$		$\frac{6}{8} = 0.75$		$\frac{7}{8} = 0.875$	$\frac{8}{8} = 1$				
$\frac{1}{9} = 0.111 \dots$		$\frac{2}{9} = 0.222 \dots$		$\frac{3}{9} = 0.333 \dots$		$\frac{4}{9} = 0.444 \dots$		$\frac{5}{9} = 0.555 \dots$		$\frac{6}{9} = 0.666 \dots$		$\frac{7}{9} = 0.777 \dots$		$\frac{8}{9} = 0.888 \dots$	$\frac{9}{9} = 1$		
$\frac{1}{10} = 0.1$		$\frac{2}{10} = 0.2$		$\frac{3}{10} = 0.3$		$\frac{4}{10} = 0.4$		$\frac{5}{10} = 0.5$		$\frac{6}{10} = 0.6$		$\frac{7}{10} = 0.7$		$\frac{8}{10} = 0.8$		$\frac{9}{10} = 0.9$	$\frac{10}{10} = 1$

Don't worry about memorising the sevenths row.

Questions:

What do you notice about the decimals of $\frac{6}{9}$, $\frac{4}{6}$ and $\frac{1}{3}$? Can you explain this?

Calculate $\frac{1}{2} + \frac{1}{10} =$

Now, calculate $0.5 + 0.1 =$

Does adding fractions and adding decimals of the same fractions give the same answer?



Now, without looking, fill in the missing numbers from memory:

1															
$\frac{1}{2} = \underline{\hspace{2cm}}$					$\frac{2}{2} = \underline{\hspace{2cm}}$										
$\frac{1}{3} = 0.33333 \dots$			$\frac{2}{3} = \underline{\hspace{2cm}}$			$\frac{3}{3} = 1$									
$\frac{1}{4} = \underline{\hspace{2cm}}$		$\frac{2}{4} = \frac{1}{2} = \underline{\hspace{2cm}}$			$\frac{3}{4} = \underline{\hspace{2cm}}$		$\frac{4}{2} = 1$								
$\frac{1}{5} = \underline{\hspace{2cm}}$		$\frac{2}{5} = \underline{\hspace{2cm}}$		$\frac{3}{5} = \underline{\hspace{2cm}}$		$\frac{4}{5} = 0.8$		$\frac{5}{5} = 1$							
$\frac{1}{6} = \underline{\hspace{2cm}}$		$\frac{2}{6} = \underline{\hspace{2cm}}$		$\frac{3}{6} = \underline{\hspace{2cm}}$		$\frac{4}{6} = 0.666 \dots$		$\frac{5}{6} = 0.8333 \dots$		$\frac{6}{6} = 1$					
$\frac{1}{7} = 0.142 \dots$		$\frac{2}{7} = 0.285 \dots$		$\frac{3}{7} = 0.428 \dots$		$\frac{4}{7} = 0.571 \dots$		$\frac{5}{7} = 0.714 \dots$		$\frac{6}{7} = 0.857 \dots$	$\frac{7}{7} = 1$				
$\frac{1}{8} = \underline{\hspace{2cm}}$		$\frac{2}{8} = 0.25$		$\frac{3}{8} = \underline{\hspace{2cm}}$		$\frac{4}{8} = 0.5$		$\frac{5}{8} = \underline{\hspace{2cm}}$		$\frac{6}{8} = 0.75$		$\frac{7}{8} = 0.\underline{\hspace{1cm}}$	$\frac{8}{8} = 1$		
$\frac{1}{9} = \underline{\hspace{2cm}}$		$\frac{2}{9} = \underline{\hspace{2cm}}$		$\frac{3}{9} = \underline{\hspace{2cm}}$		$\frac{4}{9} = \underline{\hspace{2cm}}$		$\frac{5}{9} = \underline{\hspace{2cm}}$		$\frac{6}{9} = 0.666 \dots$		$\frac{7}{9} = \underline{\hspace{2cm}}$		$\frac{8}{9} = \underline{\hspace{2cm}}$	$\frac{9}{9} = 1$
$\frac{1}{10} = \underline{\hspace{2cm}}$	$\frac{2}{10} = \underline{\hspace{2cm}}$	$\frac{3}{10} = \underline{\hspace{2cm}}$	$\frac{4}{10} = \underline{\hspace{2cm}}$	$\frac{5}{10} = \underline{\hspace{2cm}}$	$\frac{6}{10} = \underline{\hspace{2cm}}$	$\frac{7}{10} = \underline{\hspace{2cm}}$	$\frac{8}{10} = \underline{\hspace{2cm}}$	$\frac{9}{10} = \underline{\hspace{2cm}}$	$\frac{10}{10} = 1$						

