

Number Tricks

3. Follow the series of steps and what do you find?

	Series of Steps	Trial 1	Trial 2	Trial 3	Trial 4
1	Write down any four digit number	4567			
2	Switch the first and last digit only and write down the new number	7564			
3	Subtract the small number from the larger	$\begin{array}{r} 7564 \\ - 4567 \\ \hline \end{array}$			
4	Divide your answer by the difference between the first and last digit	$7 - 4 = 3$ Divide by 3			
5	Final result				

A. What is the pattern?

B. Challenge: Does it work for a 2, 3 or 5 digit numbers?

C. Super Challenge: How can you explain this?