# Legs Eleven

Take a four-digit number: 3527
Move the first digit to the 'back of the queue' and move the rest along, giving 5273. Now add your two numbers.

I'm told that this process is supposed to generate numbers with a particular property. What properties does your total have that might be the one we're after?

Now try 6154. Then try 4139, and a few other four-digit numbers.
What do all your answers have in common?

Does this always work for four-digit numbers? Why?

Check that it works for other numbers, two-digit, three-digit, five-digit, 38-digit...

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