Problem of the Week-7: Double Palindrome

Let abc represent a 3-digit number in base 10 with $a \geq c + 2$. Let $efg = abc - cba$. Find the value of $efg + gfe$ for all a, b, c as above. Your solution must prove that the value of the sum $efg + gfe$ is fixed for all such numbers.

As always, show your work, explain and justify your answer.