Computations from the paper:

Concatenatinos of Terms of an Arithmetic Progressions

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Sm vs sm

```
> restart
> with(Smarandache) :
> with(CodeTools) :
> sm := n → parse(cat(`$`(n + 1)))
```

$$sm := n \mapsto parse(cat(\text{`\$`}(n+1))) \quad (1)$$

```
> L := [seq(10^l − 1, l = 5..8)] :
> t, vsm1 := CPUTime(sm(L[1])) : t
```

0.079 (2)

```
> t, vSm1 := CPUTime(Sm(L[1])) : t
```

0.046 (3)

```
> vSm1 − vsm1
```

0 (4)

```
> t, vsm2 := CPUTime(sm(L[2])) : t
```

0.719 (5)

```
> t, vSm2 := CPUTime(Sm(L[2])) : t
```

0.125 (6)

```
> vSm2 − vsm2
```

0 (7)

```
> t, vsm3 := CPUTime(sm(L[3])) : t
```

10.969 (8)

```
> t, vSm3 := CPUTime(Sm(L[3])) : t
```

1.766 (9)

```
> vSm3 − vsm3
```

0 (10)

```
> t, vsm4 := CPUTime(sm(L[4])) : t
```

208.391 (11)

```
> t, vSm4 := CPUTime(Sm(L[4])) : t
```

31.532 (12)

```
> vSm4 − vsm4
```

0 (13)

```
>
```

Smr vs smr

```
> restart
> with(Smarandache) :
> with(CodeTools) :
> smr := proc(n,$) local i; parse(cat(n + 1 - i$i = 0 ..n)) end proc:
> L := [seq(10^l - 1, l = 5 ..8)]:
> t, vsmr1 := CPUTime(smr(L[1])) : t
```

0.047 **(14)**

```
> t, vSmr1 := CPUTime(Smr(L[1])) : t
```

0.016 **(15)**

```
> vSmr1 - vsmr1
```

0 **(16)**

```
> t, vsmr2 := CPUTime(smr(L[2])) : t
```

1.047 **(17)**

```
> t, vSmr2 := CPUTime(Smr(L[2])) : t
```

0.516 **(18)**

```
> vSmr2 - vsmr2
```

0 **(19)**

```
> t, vsmr3 := CPUTime(smr(L[3])) : t
```

12.921 **(20)**

```
> t, vSmr3 := CPUTime(Smr(L[3])) : t
```

7.313 **(21)**

```
> vSmr3 - vsmr3
```

0 **(22)**

```
> t, vsmr4 := CPUTime(smr(L[4])) : t
```

215.765 **(23)**

```
> t, vSmr4 := CPUTime(Smr(L[4])) : t
```

123.657 **(24)**

```
> vSmr4 - vsmr4
```

0 **(25)**

```
>
```