Cinquante signes

# Cinquante signes

novembre 14, 2019

Hello SeqFans,

S = 0, 10, 11, 20, 12, 22, 30, 13, 23, 33, 40, 14, 24, 34, 44, 50, 15, 25, 35, 45, 55, 60, 16, 26, 36, 46, 56, 66, 70, 17, 27, 37, 47, 57, 67, 77, 80, 18, 28, 38, 48, 58, 68, 78, 88, 90, 19, 29, 39, 49, 59, 69, 79, 89, 99, 100, 112, 113, 114, 115, 116, 117, 118, 119, 120, 123, 124, 125, 126, 127, 128, 129, 130, 134, 135, 136, 137, 138, 139, 140, 145, 146, 147, 148, 149, 150, 156, 157, 158, 159, 160, 167, 168, 169, 170, 178, 179, 180, 189,... (many thanks to

*Unknown* who corrected my first wrong draft!-)

Pick any term (except the first one) – for instance `189` (at the end); this 189 says "On my left, there are 18 digits "9", altogether. Which is correct: from 0 to 180 (both markers included) there are exactly eighteen digits 9 in S.
S is always extended with the smallest integer that "says the truth" about the past of S.
S is started with a(1) = 0.
Could someone compute more terms and submit S to the OEIS (if S is not already there, possibly with another start and S being of interest, of course?)

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The second part of this post is this one – and deals precisely with different a(1)s.

What if we take a(1) = 2019? We would have (same "minimal" rule in extending S) – if I'm not wrong:
S = 2019, 10, 12, 19, 20, 29, 30, 13, 23, 33, 39,...

Will 2019 reappear at some point on the right – meaning « There are 201 "9" at my left »? (Update #2 by *Unknown*: « 2019 never appears, because, starting at the 676th term, when we have seen 200 9s, we have 1972, 1973, which puts us up to 202 9s, having passed 2019 by »).

I've started a list R of such "reappearing" numbers:

R = 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, ...
and from there it was too complicated for my brain.

Is R of interest? Or the complement P of R: "Numbers P that never reappear" (like 11, 21, 31, 32, 33, etc.)

Best,
É.

**Anonyme** *14 novembre 2019 à 10:33*

Very interesting sequence. Should the 10th entry, which you give as 40, be 33? (Previous entries 23, 13, 30 have 3 3's amongst them.) For the first 100 terms I get 0, 10, 11, 20, 12, 22, 30, 13, 23, 33, 40, 14, 24, 34, 44, 50, 15, 25, 35, 45, 55, 60, 16, 26, 36, 46, 56, 66, 70, 17, 27, 37, 47, 57, 67, 77, 80, 18, 28, 38, 48, 58, 68, 78, 88, 90, 19, 29, 39, 49, 59, 69, 79, 89, 99, 100, 112, 113, 114, 115, 116, 117, 118, 119, 120, 123, 124, 125, 126, 127, 128, 129, 130, 134, 135, 136, 137, 138, 139, 140, 145, 146, 147, 148, 149, 150, 156, 157, 158, 159, 160, 167, 168, 169, 170, 178, 179, 180, 189, 190.

**RÉPONDRE**

**Anonyme** *14 novembre 2019 à 10:42*

In the 2019 sequence, 2019 never appears, because, starting at the 676th term, when we have seen 200 9s, we have 1972, 1973, which puts us up to 202 9s, having passed 2019 by.

**Éric ANGELINI** *14 novembre 2019 à 14:30*

Many thanks, Unknown! You're correct and I'll update my page!

**RÉPONDRE**

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## A square for three (chess)

*juin 22, 2024*

(English translation after the French text) Voici cinq problèmes d'échecs disjoints : a ) combien faut-il de coups au minimum pour que trois pions soient capturés sur la même case ? b ) trois tours c ) trois c ...

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## Le tripalin se présente

*avril 11, 2024*

Un tripalin est constitué de trois images. Chaque image illustre un substantif. Accolés, ces trois substantifs forment une chaîne palindromique. Laquelle nous vous invitons à trouver. Exem ...

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## Some strings au cinéma Galeries

*juillet 19, 2024*

Lettre ouverte au cinéma Galeries Bonsoir à tous, Je viens de voir pour la seconde fois chez vous le beau film de Léos Carax (la première fois c'était le 26 juin en présence du réalisateur, au BRIFF). Apparut à l'écran aujourd'hui, avant la projection propre ...

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**ÉRIC ANGELINI**

CONSULTER LE PROFIL

**Archiver**

Signaler un abus