

Add to a(n) a product of digits

Hello SeqFans,

just add to a(n) the product of the two closest digits to the comma printed before a(n); start with a(1)=a(2)=1:

S=1,1,2,4,12,16,18,24,40,56,56,86,134,140,144,144,148,152,160,162,162,164,166,170,176,176,182...

Hope this is of some interest!

Best,

E.

[Douglas McNeil]:

> Hello SeqFans,

> just add to a(n) the product of the two closest digits to the comma printed before a(n); start with a(1)=a(2)=1:

I think you mean "add to a(n-1)", i.e. $a(n) = a(n-1) + \text{prod}(\text{the least sig. digit of } a(n-2), \text{ the most sig. digit of } a(n-1))$.

(...)

sage: a

[1, 1, 2, 4, 12, 16, 18, 24, 40, 56, 56, 86, 134, 140, 144, 144, 148, 152, 160, 162, 162, 164, 166, 170, 176, 176, 182, 188, 190, 198, 198, 206, 222, 234, 238, 246, 262, 274, 278, 286, 302, 320, 326, 326, 344, 362, 374, 380, 392, 392, 398, 404, 436, 452, 476, 484, 508, 528, 568, 608, 656, 704, 746, 774, 816, 848, 896, 960, 1014, 1014, 1018, 1022, 1030, 1032, 1032, 1034, 1036, 1040, 1046, 1046, 1052, 1058, 1060, 1068, 1068, 1076, 1084, 1090, 1094, 1094, 1098, 1102, 1110, 1112, 1112, 1114, 1116, 1120, 1126, 1126, 1132, 1138, 1140, 1148, 1148, 1156, 1164, 1170, 1174, 1174, 1178, 1182, 1190, 1192, 1192, 1194, 1196, 1200, 1206, 1206, 1212, 1218, 1220, 1228, 1228, 1236, 1244, 1250, 1254, 1254, 1258, 1262, 1270, 1272, 1272, 1274, 1276, 1280, 1286, 1286, 1292, 1298, 1300, 1308, 1308, 1316, 1324, 1330, 1334, 1334, 1338, 1342, 1350, 1352, 1352, 1354, 1356, 1360, 1366, 1366, 1372, 1378, 1380, 1388, 1388, 1396, 1404, 1410, 1414, 1414, 1418, 1422, 1430, 1432, 1432, 1434, 1436, 1440, 1446, 1446, 1452, 1458, 1460, 1468, 1468, 1476, 1484, 1490, 1494, 1494, 1498, 1502, 1510, 1512, 1512, 1514, 1516, 1520, 1526, 1526]

Yes, this is it **Doug**, many thanks!

Best,

E.