

CE2

Défi maths n°1

Pommérieux

Nous avons séparé les élèves en groupes de deux et nous sommes partagé les nombres. Voici le résultat de nos recherches:

1 → 4, 2, 1

2 → 1

3 → 3 | 9 | 27 | 2 43 | 2 | 4 | 2 | 11

4 → 2, 1

5 15, 16, 8, 4, 2, 1

6 → 3, 10, 5, 16, 8, 4, 2, 1

7 → 22 → 11 → 34 → 17 → 52 → 26 → 13 → 40 → 20 → 10 → 5 → 16 → 8 → 4 → 2 → 1

8 → 4, 2, 1

9 → 28, 14, 7, 22, 11, 34, 17, 52, 26, 13, 41, 124, 62, 31, 94, 47, 1

10 → 5, 16, 8, 4 | 2 | 1 | 28, 14, 7, 22, 11, 34, 17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1

11 → 24, 17, 52

11 → 34, 17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1

12 → 6, 3, 10, 5, 16, 8, 4, 2, 1

13 40 → 20 → 10 → 5 → 16 → 8 → 4 → 2 → 1

14 7 → 22 → 11 → 34 → 17 → 52 → 26 → 13 → 40 → 20 → 10 → 5 → 16 → 8 → 4 → 2 → 1

15 4 2 3 7 0 3 5 10 5 16 8 0 40 20 16 8

16 → 8, 4, 2, 1

17 → 52, 26, 13, 40, 20, 10, 75 16, 8, 4, 2, 1

18 → 9 - 2 8 → 14 → 7 → 22 → 11 → 34 → 17 → 5 2 → 26 → 8 → 4

19 → 58 → 29 → 88 → 44 → 22 → 11 → 34 → 17 → 52 → 26 → 13 → 40 → 20 → 10 → 5 → 16 → 8 → 4 → 2 → 1

- 20) 20, 10, 5, 16, 8, 4, 2, 1
- 21 → 64, 32, 16, 8, 4, 2, 1
- 22 → 11 → 34 → 17 → 52 → 26 → 13 → 40 → 20 → 10 → 5 → 16 → 8 → 4 → 2 → 1
- 23 → 70, 35, 106, 53, 164, 82, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1
- 24 12, 6, 3, 1, 10, 5, 16, 8, 4, 2, 1
- 25 76, 38, 19, 58, 29, 88, 44, 22, 11, 34, 17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1
- 26 13, 40, 20, 10, 5, 16, 8, 4, 2, 1
- 27 82, 41, 124, 62, 31, 94, 47, 188, 94, 47, 142, 71, 214, 107, 322, 161, 489, 242, 121, 364, 182, 91, 274, 137, 412, 206, 103, 311, 155, 466, 233, 700, 350, 175, 526, 263, 790, 395, 1186, 593, 1780, 890, 445, 1336, 668, 334, 167, 502, 251, 754, 377, 1132, 566, 283, 850, 425, 1276, 638, 319, 958, 479, 1438, 719, 2158, 1079, 3238, 1619, 4858, 2429, 7288, 3644, 1822, 911, 2734, 1367, 4102, 2051, 6154, 3077, 9232, 4616, 2308, 1154, 577, 1732, 866, 433, 1300, 650, 325, 976, 488, 244, 122, 61, 184, 92, 46, 23, 70, 35, 106, 53, 160, 80, 40, 20, 10, 5, 16, 8, 4, 2, 1

Conclusion: Tous les nombres de 1 à 30 finissent par 4, 2, 1

- 27, 82, 41, 124, 62, 31, 94, 47, 188, 94, 47, 142, 71, 214, 107, 322, 161, 489, 242, 121, 364, 182, 91, 274, 137, 412, 206, 103, 311, 155, 466, 233, 700, 350, 175, 526, 263, 790, 395, 1186, 593, 1780, 890, 445, 1336, 668, 334, 167, 502, 251, 754, 377, 1132, 566, 283, 850, 425, 1276, 638, 319, 958, 479, 1438, 719, 2158, 1079, 3238, 1619, 4858, 2429, 7288, 3644, 1822, 911, 2734, 1367, 4102, 2051, 6154, 3077, 9232, 4616, 2308, 1154, 577, 1732, 866, 433, 1300, 650, 325, 976, 488, 244, 122, 61, 184, 92, 46, 23, 70, 35, 106, 53, 160, 80, 40, 20, 10, 5, 16, 8, 4, 2, 1

On a vu que 27 ne terminait pas par 4, 2, 1. Or on a regardé internet et elle finit quand même. Un courageux est allé jusqu'au bout; il y a 111 dans la suite!

- 27, 82, 41, 124, 62, 31, 94, 47, 142, 71, 214, 107, 322, 161, 489, 242, 121, 364, 182, 91, 274, 137, 412, 206, 103, 311, 155, 466, 233, 700, 350, 175, 526, 263, 790, 395, 1186, 593, 1780, 890, 445, 1336, 668, 334, 167, 502, 251, 754, 377, 1132, 566, 283, 850, 425, 1276, 638, 319, 958, 479, 1438, 719, 2158, 1079, 3238, 1619, 4858, 2429, 7288, 3644, 1822, 911, 2734, 1367, 4102, 2051, 6154, 3077, 9232, 4616, 2308, 1154, 577, 1732, 866, 433, 1300, 650, 325, 976, 488, 244, 122, 61, 184, 92, 46, 23, 70, 35, 106, 53, 160, 80, 40, 20, 10, 5, 16, 8, 4, 2, 1