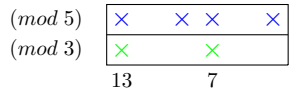
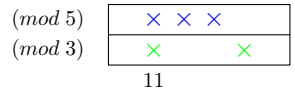
Mots périodiques ou comment projeter tous les restes sur 0 ou 1 (suite) (Denise Vella-Chemla, 9.1.2019)

Note : la méthode présentée ci-dessous de recherche de décomposants de Goldbach des nombres pairs ne permet pas de trouver comme décomposant de Goldbach de n un nombre premier p inférieur à $\lfloor\sqrt{n}\rfloor$ (on oublie systématiquement les congruences à 0). Par exemple, juste ci-dessous, 3 n'est pas noté comme décomposant de Goldbach de 26 le double de 13 alors qu'il en est un : $26 = 3 + 23$. Le traitement des n doubles de premiers est différencié en rouge.

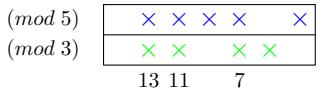
$n = 26,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$



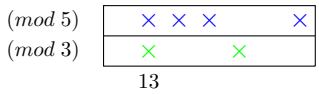
$n = 28,\ n \equiv 1\ (3),\ n \equiv 3\ (5)$ $\quad$ $sol \equiv 2\ (3),\ sol \equiv 1, 2, 4\ (5)$



$n = 30,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$

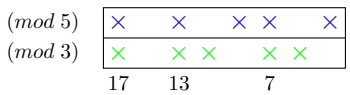


$n = 32,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$

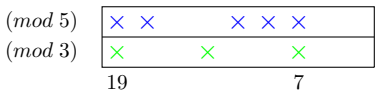


$n = 34,\ n \equiv 1\ (3),\ n \equiv 4\ (5)$ $\quad$ $sol \equiv 2\ (3),\ sol \equiv 1, 2, 3\ (5)$

$n = 36,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$

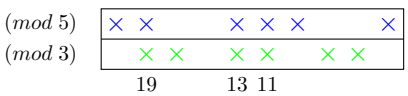


$n = 38,\ n \equiv 2\ (3),\ n \equiv 3\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 1, 2, 4\ (5)$

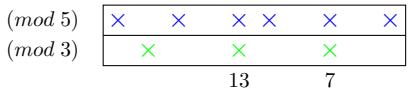


$n = 40,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$

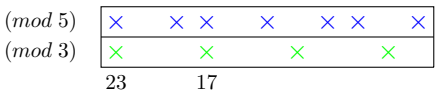
$n = 42,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\quad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$



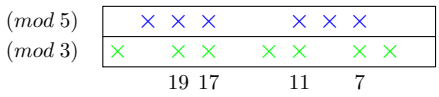
$n = 44,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\qquad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$



$n = 46,\ n \equiv 1\ (3),\ n \equiv 1\ (5)$ $\qquad$ $sol \equiv 2\ (3),\ sol \equiv 2, 3, 4 (5)$

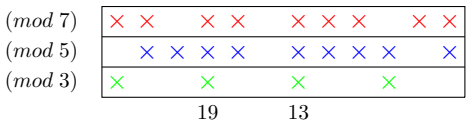


$n = 48,\ n \equiv 2\ (3),\ n \equiv 1\ (5)$ $\qquad$ $sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5)$



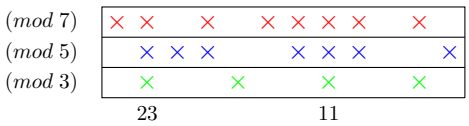
$n = 50,\ n \equiv 2\ (3),\ n \equiv 1\ (5),\ n \equiv 1\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 2, 3, 4, 5, 6\ (7)$



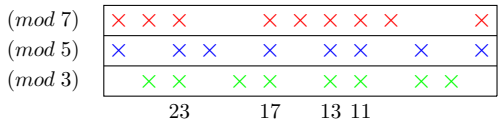
$n = 52,\ n \equiv 1\ (3),\ n \equiv 2\ (5),\ n \equiv 3\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 1, 2, 4, 5, 6\ (7)$



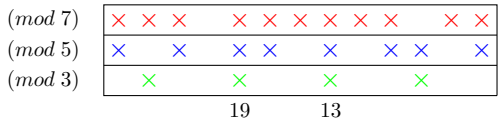
$n = 54,\ n \equiv 0\ (3),\ n \equiv 4\ (5),\ n \equiv 5\ (7)$

$sol \equiv 1, 2\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 1, 2, 3, 4, 6\ (7)$



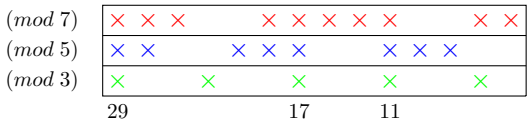
$n = 56,\ n \equiv 2\ (3),\ n \equiv 1\ (5),\ n \equiv 0\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5, 6\ (7)$



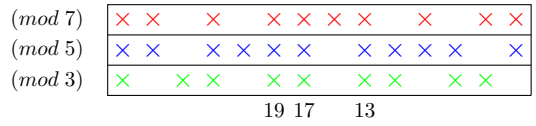
$n = 58,\ n \equiv 1\ (3),\ n \equiv 3\ (5),\ n \equiv 2\ (7)$

$sol \equiv 2\ (3),\ sol \equiv 1, 2, 4\ (5),\ sol \equiv 1, 3, 4, 5, 6\ (7)$



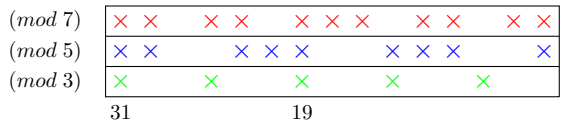
$n = 60,\ n \equiv 0\ (3),\ n \equiv 0\ (5),\ n \equiv 4\ (7)$

$$sol \equiv 1, 2\ (3),\ sol \equiv 1, 2, 3, 4\ (5),\ sol \equiv 1, 2, 4, 5, 6\ (7)$$



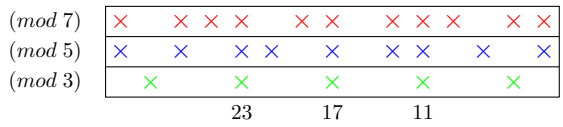
$n = 62,\ n \equiv 2\ (3),\ n \equiv 2\ (5),\ n \equiv 6\ (7)$

$$sol \equiv 1\ (3),\ sol \equiv 1, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5\ (7)$$



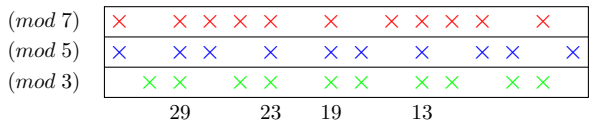
$n = 64,\ n \equiv 1\ (3),\ n \equiv 4\ (5),\ n \equiv 1\ (7)$

$$sol \equiv 2\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 2, 3, 4, 5, 6\ (7)$$



$n = 66,\ n \equiv 0\ (3),\ n \equiv 1\ (5),\ n \equiv 3\ (7)$

$$sol \equiv 1, 2\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 1, 2, 4, 5, 6\ (7)$$

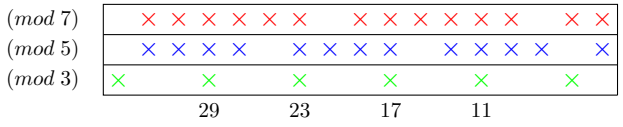


$n = 68,\ n \equiv 2\ (3),\ n \equiv 3\ (5),\ n \equiv 5\ (7)$

$$sol \equiv 1\ (3),\ sol \equiv 1, 2, 4\ (5),\ sol \equiv 1, 2, 3, 4, 6\ (7)$$

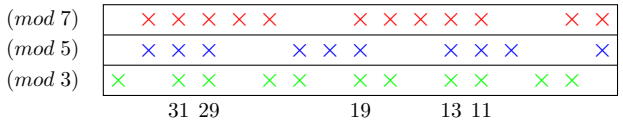
$n = 70,\ n \equiv 1\ (3),\ n \equiv 0\ (5),\ n \equiv 0\ (7)$

$$sol \equiv 2\ (3),\ sol \equiv 1, 2, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5, 6\ (7)$$



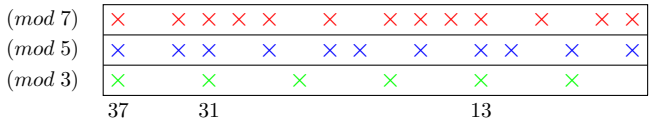
$n = 72,\ n \equiv 0\ (3),\ n \equiv 2\ (5),\ n \equiv 2\ (7)$

$$sol \equiv 1, 2\ (3),\ sol \equiv 1, 3, 4\ (5),\ sol \equiv 1, 3, 4, 5, 6\ (7)$$



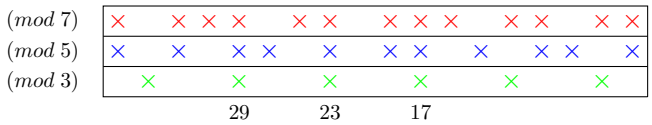
$n = 74,\ n \equiv 2\ (3),\ n \equiv 4\ (5),\ n \equiv 4\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 1, 2, 3, 5, 6\ (7)$



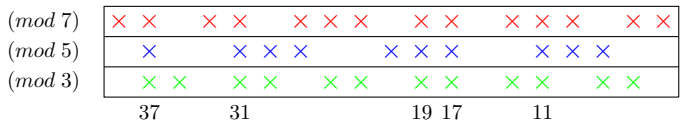
$n = 76,\ n \equiv 1\ (3),\ n \equiv 1\ (5),\ n \equiv 6\ (7)$

$sol \equiv 2\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5\ (7)$



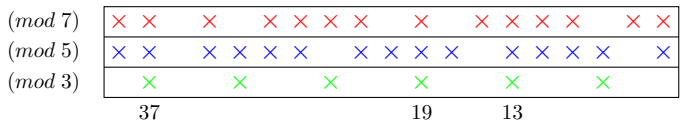
$n = 78,\ n \equiv 0\ (3),\ n \equiv 3\ (5),\ n \equiv 1\ (7)$

$sol \equiv 1, 2\ (3),\ sol \equiv 1, 2, 4\ (5),\ sol \equiv 2, 3, 4, 5, 6\ (7)$



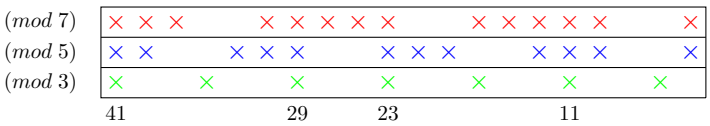
$n = 80,\ n \equiv 2\ (3),\ n \equiv 0\ (5),\ n \equiv 3\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 1, 2, 3, 4\ (5),\ sol \equiv 1, 2, 4, 5, 6\ (7)$



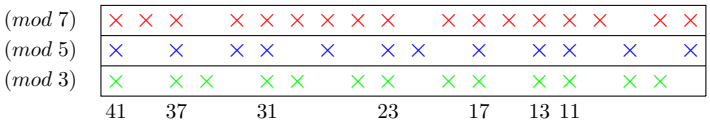
$n = 82,\ n \equiv 1\ (3),\ n \equiv 2\ (5),\ n \equiv 5\ (7)$

$sol \equiv 2\ (3),\ sol \equiv 1, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 6\ (7)$



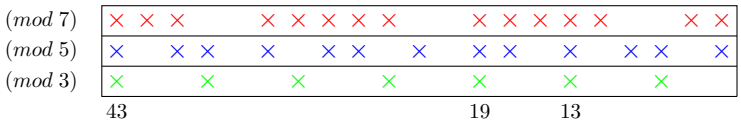
$n = 84,\ n \equiv 0\ (3),\ n \equiv 4\ (5),\ n \equiv 0\ (7)$

$sol \equiv 1, 2\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 1, 2, 3, 4, 5, 6\ (7)$



$n = 86,\ n \equiv 2\ (3),\ n \equiv 4\ (5),\ n \equiv 2\ (7)$

$sol \equiv 1\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 1, 3, 4, 5, 6\ (7)$

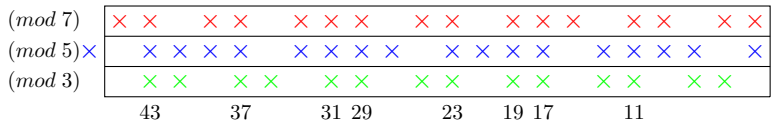


$n = 88,\ n \equiv 1\ (3),\ n \equiv 3\ (5),\ n \equiv 4\ (7)$

$$sol \equiv 2\ (3),\ sol \equiv 1, 2, 4\ (5),\ sol \equiv 1, 2, 3, 5, 6\ (7)$$

$n = 90,\ n \equiv 0\ (3),\ n \equiv 0\ (5),\ n \equiv 6\ (7)$

$$sol \equiv 1, 2\ (3),\ sol \equiv 1, 2, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5\ (7)$$

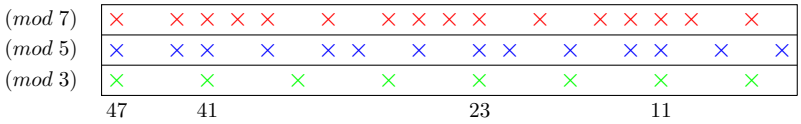


$n = 92,\ n \equiv 2\ (3),\ n \equiv 2\ (5),\ n \equiv 1\ (7)$

$$sol \equiv 1\ (3),\ sol \equiv 1, 3, 4\ (5),\ sol \equiv 2, 3, 4, 5, 6\ (7)$$

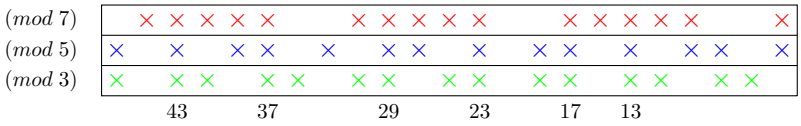
$n = 94,\ n \equiv 1\ (3),\ n \equiv 4\ (5),\ n \equiv 3\ (7)$

$$sol \equiv 2\ (3),\ sol \equiv 1, 2, 3\ (5),\ sol \equiv 1, 2, 4, 5, 6\ (7)$$



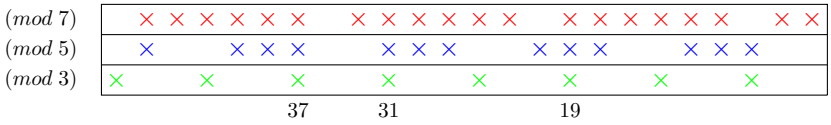
$n = 96,\ n \equiv 0\ (3),\ n \equiv 1\ (5),\ n \equiv 5\ (7)$

$$sol \equiv 1, 2\ (3),\ sol \equiv 2, 3, 4\ (5),\ sol \equiv 1, 2, 3, 4, 6\ (7)$$



$n = 98,\ n \equiv 2\ (3),\ n \equiv 3\ (5),\ n \equiv 0\ (7)$

$$sol \equiv 1\ (3),\ sol \equiv 1, 2, 4\ (5),\ sol \equiv 1, 2, 3, 4, 5, 6\ (7)$$



$n = 100,\ n \equiv 1\ (3),\ n \equiv 0\ (5),\ n \equiv 2\ (7)$

$$sol \equiv 2\ (3),\ sol \equiv 1, 2, 3, 4\ (5),\ sol \equiv 1, 3, 4, 5, 6\ (7)$$