n: 5

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of ways to color the third color: 8

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

all options for 4-th color: 8

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of 3-color with \* 2 \* options for 4-color: 8

n: 7

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of ways to color the third color: 180

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

all options for 4-th color: 3328

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of 3-color with \* 32 \* options for 4-color: 24

number of 3-color with \* 36 \* options for 4-color: 112

number of 3-color with \* 42 \* options for 4-color: 42

number of 3-color with \* 46 \* options for 4-color: 2

n: 9

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of ways to color the third color: 8064

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

all options for 4-th color: 5654592

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

number of 3-color with \* 1344 \* options for 4-color: 405

number of 3-color with \* 1328 \* options for 4-color: 270

number of 3-color with \* 1304 \* options for 4-color: 54

number of 3-color with \* 1352 \* options for 4-color: 216

number of 3-color with \* 1248 \* options for 4-color: 33

number of 3-color with \* 1296 \* options for 4-color: 174

number of 3-color with \* 1280 \* options for 4-color: 108

number of 3-color with \* 1384 \* options for 4-color: 486

number of 3-color with \* 1376 \* options for 4-color: 567

number of 3-color with \* 1368 \* options for 4-color: 540

number of 3-color with \* 1336 \* options for 4-color: 162

number of 3-color with \* 1320 \* options for 4-color: 36

number of 3-color with \* 1360 \* options for 4-color: 315

number of 3-color with \* 1392 \* options for 4-color: 486

number of 3-color with \* 1400 \* options for 4-color: 396

number of 3-color with \* 1416 \* options for 4-color: 360

number of 3-color with \* 1408 \* options for 4-color: 621

number of 3-color with \* 1432 \* options for 4-color: 540

number of 3-color with \* 1424 \* options for 4-color: 324

number of 3-color with \* 1448 \* options for 4-color: 270

number of 3-color with \* 1440 \* options for 4-color: 450

number of 3-color with \* 1472 \* options for 4-color: 324

number of 3-color with \* 1504 \* options for 4-color: 117

number of 3-color with \* 1464 \* options for 4-color: 108

number of 3-color with \* 1488 \* options for 4-color: 216

number of 3-color with \* 1480 \* options for 4-color: 108

number of 3-color with \* 1536 \* options for 4-color: 162

number of 3-color with \* 1512 \* options for 4-color: 54

number of 3-color with \* 1456 \* options for 4-color: 54

number of 3-color with \* 1528 \* options for 4-color: 108