

Challenge 352: Composite Combinations

Some positive even integers can be written as the sum of two positive odd numbers, both of which are composite (this means "not prime and not equal to 1"). For example, $36 = 9 + 27$ (or $15 + 21$)

We will call positive even integers with this property **silverback** numbers. So 36 is a **silverback** number.

- How many positive even integers less than or equal to 40 are **not** silverback numbers?
- How many positive even integers greater than 40 are **not** silverback numbers?

Provide the best evidence you can for your answers.