Conditions

in 2013, 7 apple trees are born...
in 2014, these 7 apple trees give birth to 7 more
in 2015, the first 7 apple trees give birth to 7 more, and the second set of 7 baby trees from 2014 give birth to 7 apple trees,
in 2016, the first 7 apple trees, the second group of 7 apple trees (2014), and the third group of 7 apple trees (2015) give birth to 7 apple trees . . .
and on it goes - each group reproducing 7 bably apple trees, who reproduce 7 bably apple trees, all the way through 2020. Calculate the final amount

Solution

The function for calculation the amount of apple trees is:

$$f(x) = 7 \cdot 2^{x-2013}$$

So that's why

$$f(2020) = 7 \cdot 2^7 = 896$$

Answer: 896