When trying to solve a mystery involving some missing pencils, you discover the following riddle about the number of pencils that were in the box originally.

There are fewer than forty pencils in the box.
If you remove four pencils at a time, eventually there will be 2 pencils left.
If you remove three pencils at a time, eventually there will be 0 pencils left.
If you remove five pencils at a time, eventually there will be 0 pencils left.

How many pencils were in the box originally?