

# An example task: The pencil problem



In the morning, Ms. Wilkins put some pencils for her students in a pencil box. After a while, she found that  $\frac{1}{2}$  of the pencils were gone. A little later, she found that  $\frac{1}{3}$  of the pencils that were left from when she checked before were gone. Still later, she found that  $\frac{1}{4}$  of the pencils that were left the last time she had checked were gone. At that point, there were 15 pencils in the pencil box. No pencils were ever added to the pencil box.

**How many pencils did Ms. Wilkins put in the pencil box in the morning?**

**Solve the problem in as many different ways as you can think of, and explain each solution. Try to relate your different solution methods to each other.**

Beckman, S. (2005). *Activity Manual for Mathematics for Elementary Teachers*. New York: Pearson, p. 486.