7-Step Process w/ Pancake Problem
Work examples by hand

Step 1

Pan size = 3  num pancakes = 2

\[ \begin{align*}
& \rightarrow 10 \text{ min} \\
\end{align*} \]

Pan size = 3  num pancakes = 6

\[ \begin{align*}
& \rightarrow 10 \text{ min} \rightarrow 20 \text{ min} \\
& \rightarrow 10 \text{ min} \\
\end{align*} \]

Pan size = 3  num pancakes = 4

\[ \begin{align*}
& \rightarrow 10 \text{ min} \rightarrow 20 \\
& \rightarrow 10 \text{ min} \\
\end{align*} \]
Step 2 Write down what you did in words

If pansize is 3 and numpancakes is 2, then 10 minutes
If pansize is 3 and numpancakes is 6, then 20 minutes
If pansize is 3 and numpancakes is 4, then 20 minutes

Step 3 Generalize

If numpancakes < pansize
  answer is 10

If numpancakes / pansize has no remainder (which means evenly divides)
  answer is numpancakes / pansize * 10

If numpancakes / pansize has a remainder
  answer is numpancakes / pansize * 10 + 10
Step 4
Work another example
pan: size 4, 8 pancakes

\[
\begin{array}{c}
\begin{tikzpicture}
\draw[fill=white] (0,0) circle (0.5);
\draw[fill=white] (0,-0.5) circle (0.5);
\draw[fill=white] (0,-1) circle (0.5);
\draw[fill=white] (0,-1.5) circle (0.5);
\end{tikzpicture}
\end{array} \rightarrow 10 \text{ min} \rightarrow 20
\begin{array}{c}
\begin{tikzpicture}
\draw[fill=white] (0,0) circle (0.5);
\draw[fill=white] (0,-0.5) circle (0.5);
\draw[fill=white] (0,-1) circle (0.5);
\draw[fill=white] (0,-1.5) circle (0.5);
\end{tikzpicture}
\end{array} \rightarrow 10 \text{ min}
\[
\text{Check: } \frac{8}{4} = 2 \times 10 = 20 \checkmark
\]

pan: size 4, 6 pancakes

\[
\begin{array}{c}
\begin{tikzpicture}
\draw[fill=white] (0,0) circle (0.5);
\draw[fill=white] (0,-0.5) circle (0.5);
\draw[fill=white] (0,-1) circle (0.5);
\draw[fill=white] (0,-1.5) circle (0.5);
\end{tikzpicture}
\end{array} \rightarrow 10 \text{ min} \rightarrow 20
\begin{array}{c}
\begin{tikzpicture}
\draw[fill=white] (0,0) circle (0.5);
\draw[fill=white] (0,-0.5) circle (0.5);
\draw[fill=white] (0,-1) circle (0.5);
\draw[fill=white] (0,-1.5) circle (0.5);
\end{tikzpicture}
\end{array} \rightarrow 10 \text{ min}
\[
\text{Check: } \frac{6}{4} = 1 \\
1 \times 10 + 10 = 20 \checkmark
\]

Step 5
code

Step 6 test

Step 7 debug
Step 7 Debug

Run APT -
pansize = 4, 60 pancakes
answer is 15!
Oh No!

Debug
Pancakes A B C D E F

A B C D → 5 min

A B E F

take C D out

A B E F → 5 min

A B done
C D E F → need 5 more
min

C D E F → 5 min

(total 15 min)

If (numpancakes mod panize) / panize
is less than or equal to 0.5
then answer is ? you finish