Rectangular milk crates

Qi-xiao works with a company that uses square-bottomed milk crates. He wonders if he might get more cartons into rectangular crates using **dividers** to partition the crates.

Using 3 dividers Qi-xiao can fit 4 or 6 cartons into a crate, depending how he uses them. See his crates in the picture.



Qi-xiao wonders:

What is the **largest number** of cartons that can fit into a rectangular crate if 11 dividers are used.

What is the **smallest number** of dividers that are needed for a rectangular crate that can hold 80 milk cartons.

level 6