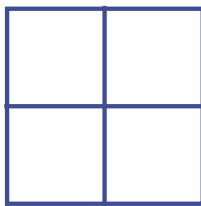


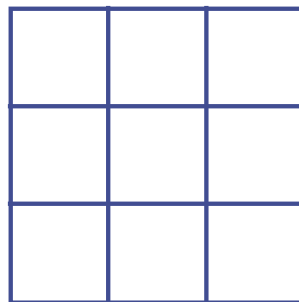
Square milk crates

Qi-xiao works with a company that uses square-bottomed milk crates. A square number of milk cartons can fit in a crate using **dividers**.

Using 2 dividers Qi-xiao can fit 4 cartons into a crate. Using 4 dividers he can fit 9 cartons in another sized crate. Both of these situations are shown in the picture.



2 dividers
4 milk carton



4 dividers
9 milk carton

How many cartons can fit into a square crate if 30 dividers are used?

How many dividers are needed for a square crate that can hold 100 milk cartons?