

Painted Cubes Problem

(From Driscoll, 1999, p. 20)

A cube with edges of length 2 centimeters is built from 1-centimeter cubes. If you paint the faces of this cube and then break it into 1-centimeter cubes, how many cubes will be painted on three faces?

How many will be painted on two faces?

How many will be painted on one face?

How many will be unpainted?

What if the edge has a length different from 2?

What if the length of the cube is 3 cm?

50 cm?

n cm?

