

6th June

Corbettmaths

How many odd numbers greater than 20000 can be formed from the digits

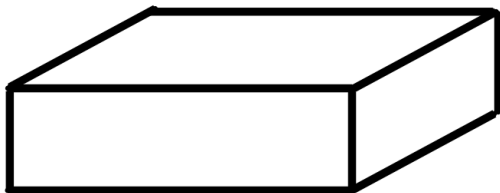
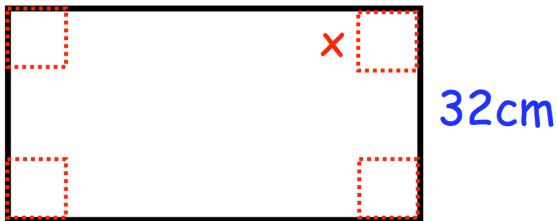
1 4 7 8 9

with no repetition of any digit?

A rectangular sheet of card measures 50cm by 32cm.

Four squares of side length x cm are cut from each corner and the remaining card is folded to make a tray.

50cm



Show that the volume of the tray is

$$V = 1600x - 164x^2 + 4x^3$$

Find the value of x for which V is a maximum.

Find the maximum value of V