

10th October

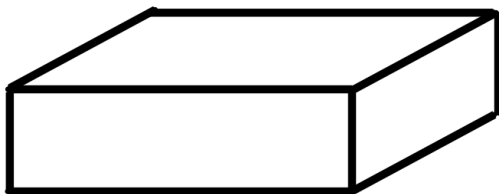
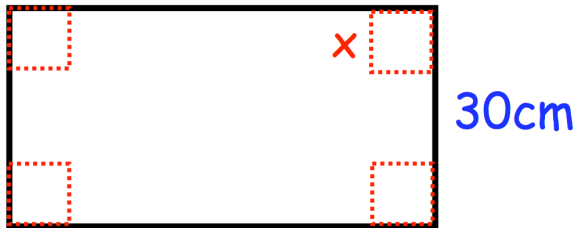
Corbettmaths

 $f(x) = x^2 - 8x$ for all values of x
State the range of $f(2x)$

A rectangular sheet of card measures 60cm by 30cm.

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

60cm



Show that the volume of the tray is $V = 1800x - 180x^2 + 4x^3$

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

Find the maximum value of V