

Challenge Problem 47: Butterfly

Figures 1, 2, 3, and 4 consist of 1, 7, 17, and 31 non-overlapping unit squares, respectively. If the pattern were continued, how many non-overlapping unit squares would there be in Figure 100?



Figure 1

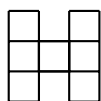


Figure 2

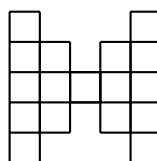


Figure 3

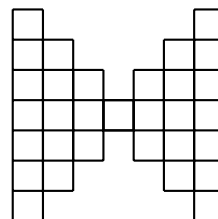


Figure 4