

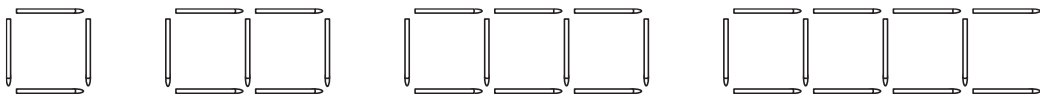
Finding nth Terms from Patterns

ANSWERS



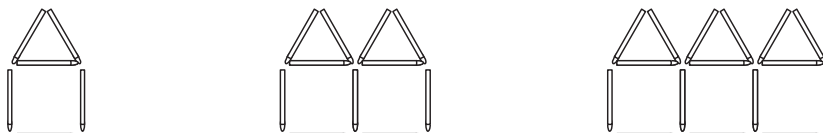
Find the number of matchsticks in the n th pattern.

Section A



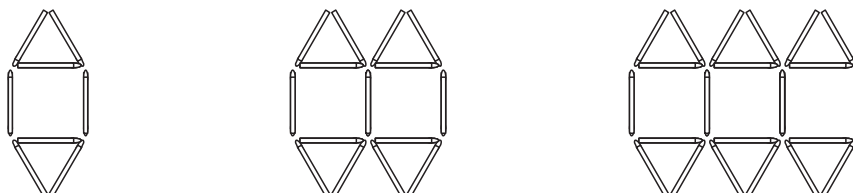
10th pattern = 31
 $3n + 1$

Section B



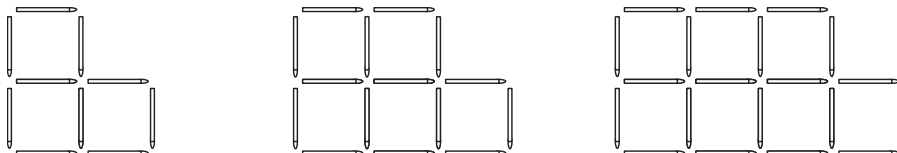
10th pattern = 51
 $5n + 1$

Section C



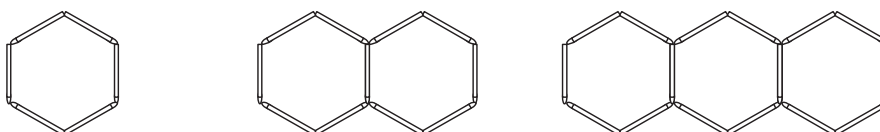
10th pattern = 71
 $7n + 1$

Section D



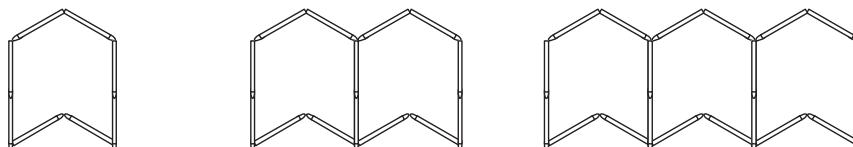
10th pattern = 55
 $5n + 5$

Section E



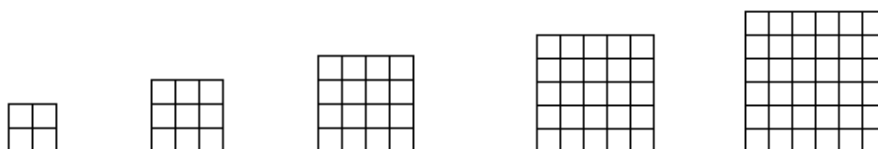
10th pattern = 51
 $5n + 1$

Section F



10th pattern = 62
 $6n + 2$

Extension



10th pattern = 121
 $(n + 1)^2$