

# EXERCISES

For Exercises 1–3, find the function rule  $f(n)$  for each sequence. Then find the 20th term in the sequence.

1. (h)

$n$	1	2	3	4	5	6	...	$n$	...	20
$f(n)$	3	9	15	21	27	33	...		...	

2.

$n$	1	2	3	4	5	6	...	$n$	...	20
$f(n)$	1	-2	-5	-8	-11	-14	...		...	

3.

$n$	1	2	3	4	5	6	...	$n$	...	20
$f(n)$	-4	4	12	20	28	36	...		...	

For Exercises 4–6, find the rule for the  $n$ th figure. Then find the number of colored tiles or matchsticks in the 200th figure.

4. (h)

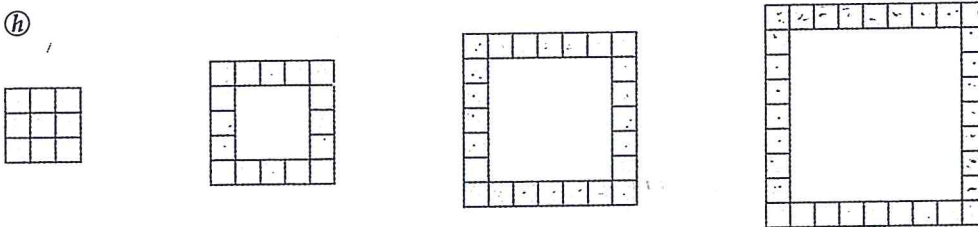


Figure number	1	2	3	4	5	6	...	$n$	...	200
Number of tiles	8						...		...	

5.

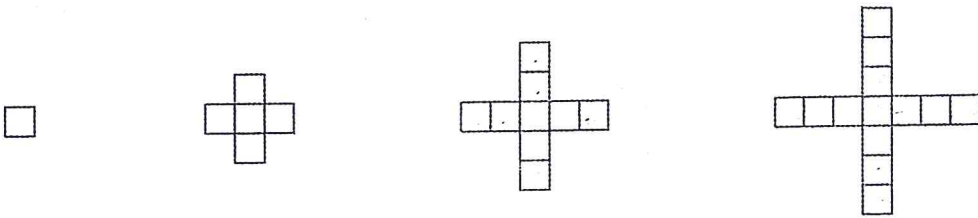


Figure number	1	2	3	4	5	6	...	$n$	...	200
Number of tiles		5					...		...	

6.

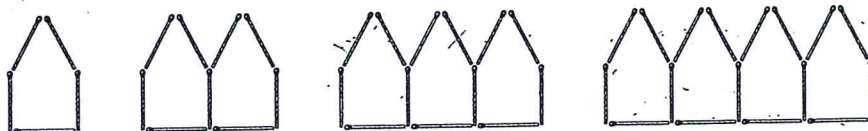


Figure number	1	2	3	4	5	6	...	$n$	...	200
Number of matchsticks	5	9					...		...	
Number of matchsticks in perimeter of figure	5	8					...		...	