Fill in the Blanks — Nth Term of a Quadratic Sequence

Sequence	5	8	13	20
First Difference		3	5	7	
Second Difference		2	2	
$\boxed{1}\, n^2$	1	4	9	16
Sequence minus n^2	4	4	4	4
Linear nth term	$+4$			
Quadratic nth term	$n^2 + 4$			

Sequence	12	15	20	27
First Difference		3	5	7	
Second Difference		2	2	
$\boxed{1}\, n^2$	1	4	9	16
Sequence minus n^2	$+11$	$+11$	$+11$	$+11$
Linear nth term	$+11$			
Quadratic nth term	$n^2 + 11$			

Sequence	0	3	8	15
First Difference		3	5	7	
Second Difference		2	2	
$\boxed{1}\, n^2$	1	4	9	16
Sequence minus n^2	-1	-1	-1	-1
Linear nth term	-1			
Quadratic nth term	$n^2 - 1$			

Sequence	7	13	23	37
First Difference		6	10	14	
Second Difference		4	4	
$\boxed{2}\, n^2$	2	8	18	32
Sequence minus n^2	5	5	5	5
Linear nth term	$+5$			
Quadratic nth term	$2n^2 + 5$			

Sequence	-1	5	15	29
First Difference		6	10	14	
Second Difference		4	4	
$\boxed{2}\, n^2$	2	8	18	32
Sequence minus n^2	-3	-3	-3	-3
Linear nth term	-3			
Quadratic nth term	$2n^2 - 3$			

Sequence	11	20	35	56
First Difference		9	15	21	
Second Difference		6	6	
$\boxed{3}\, n^2$	3	12	27	48
Sequence minus n^2	8	8	8	8
Linear nth term	$+8$			
Quadratic nth term	$3n^2 + 8$			