Solutions – Quadratic Sequences (A)

–3, 4, 17, 36, ... Find a formula for the n^{th} term.

$a_n = 3n^2 - 2n - 4$

10, 19, 34, 55, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + 7$

8, 13, 20, 29, ... Find a formula for the n^{th} term.

$a_n = n^2 + 2n + 5$

8, 4, –4, –16, ... Find a formula for the n^{th} term.

$a_n = -2n^2 + 2n + 8$

2, 10, 22, 38, ... Find a formula for the n^{th} term.

$a_n = 2n^2 + 2n - 2$

8, 5, 0, –7, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 9$

Solutions – Quadratic Sequences (B)

–4, 0, 6, 14, ... Find a formula for the n^{th} term.

$a_n = n^2 + n - 6$

13, 23, 39, 61, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + n + 9$

2, 5, 12, 23, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 3n + 3$

–11, –11, –9, –5, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 9$

5, 15, 31, 53, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + n + 1$

1, 7, 17, 31, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 1$

Solutions – Quadratic Sequences (C)

6, 11, 20, 33, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - n + 5$

–5, –2, 3, 10, ... Find a formula for the n^{th} term.

$a_n = n^2 - 6$

0, 10, 26, 48, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + n - 4$

3, 10, 23, 42, ... Find a formula for the n^{th} term.

$a_n = 3n^2 - 2n + 2$

–4, 0, 10, 26, ... Find a formula for the n^{th} term.

$a_n = 3n^2 - 5n - 2$

–11, –19, –31, –47, ... Find a formula for the n^{th} term.

$a_n = -2n^2 - 2n - 7$

Solutions – Quadratic Sequences (D)

13, 12, 7, –2, ... Find a formula for the n^{th} term.

$a_n = -2n^2 + 5n + 10$

–7, –7, –5, –1, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 5$

0, 14, 34, 60, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + 5n - 8$

7, 7, 5, 1, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 3n + 5$

–16, –26, –40, –58, ... Find a formula for the n^{th} term.

$a_n = -2n^2 - 4n - 10$

2, 0, –4, –10, ... Find a formula for the n^{th} term.

$a_n = -n^2 + n + 2$

Solutions – Quadratic Sequences (E)

–7, –3, 7, 23, ... Find a formula for the n^{th} term.

$a_n = 3n^2 - 5n - 5$

0, –6, –14, –24, ... Find a formula for the n^{th} term.

$a_n = -n^2 - 3n + 4$

3, 6, 11, 18, ... Find a formula for the n^{th} term.

$a_n = n^2 + 2$

–4, –3, 2, 11, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 5n - 1$

7, 7, 9, 13, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n + 9$

–3, 0, 7, 18, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 3n - 2$

Solutions – Quadratic Sequences (F)

–10, –15, –22, –31, ... Find a formula for the n^{th} term.

$a_n = -n^2 - 2n - 7$

1, –10, –25, –44, ... Find a formula for the n^{th} term.

$a_n = -2n^2 - 5n + 8$

–8, –8, –10, –14, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 3n - 10$

–12, –12, –10, –6, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 10$

3, –4, –13, –24, ... Find a formula for the n^{th} term.

$a_n = -n^2 - 4n + 8$

1, 0, –3, –8, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 2n$

Solutions – Quadratic Sequences (G)

–6, –6, –4, 0, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 4$

6, 14, 28, 48, ... Find a formula for the n^{th} term.

$a_n = 3n^2 - n + 4$

–9, –9, –7, –3, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 7$

–5, 2, 11, 22, ... Find a formula for the n^{th} term.

$a_n = n^2 + 4n - 10$

7, 4, –3, –14, ... Find a formula for the n^{th} term.

$a_n = -2n^2 + 3n + 6$

12, 20, 30, 42, ... Find a formula for the n^{th} term.

$a_n = n^2 + 5n + 6$

Solutions – Quadratic Sequences (H)

5, 4, –1, –10, ... Find a formula for the n^{th} term.

$a_n = -2n^2 + 5n + 2$

1, 2, 7, 16, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 5n + 4$

–9, –9, –7, –3, ... Find a formula for the n^{th} term.

$a_n = n^2 - 3n - 7$

14, 16, 16, 14, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 5n + 10$

14, 22, 34, 50, ... Find a formula for the n^{th} term.

$a_n = 2n^2 + 2n + 10$

–8, –14, –24, –38, ... Find a formula for the n^{th} term.

$a_n = -2n^2 - 6$

Solutions – Quadratic Sequences (I)

2, 12, 28, 50, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + n - 2$

6, 16, 30, 48, ... Find a formula for the n^{th} term.

$a_n = 2n^2 + 4n$

10, 8, 4, –2, ... Find a formula for the n^{th} term.

$a_n = -n^2 + n + 10$

–4, –11, –22, –37, ... Find a formula for the n^{th} term.

$a_n = -2n^2 - n - 1$

–2, –3, –8, –17, ... Find a formula for the n^{th} term.

$a_n = -2n^2 + 5n - 5$

5, 2, –3, –10, ... Find a formula for the n^{th} term.

$a_n = -n^2 + 6$

Solutions – Quadratic Sequences (J)

10, 20, 36, 58, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + n + 6$

–6, 0, 10, 24, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 8$

5, 17, 35, 59, ... Find a formula for the n^{th} term.

$a_n = 3n^2 + 3n - 1$

–6, –9, –14, –21, ... Find a formula for the n^{th} term.

$a_n = -n^2 - 5$

–1, 9, 23, 41, ... Find a formula for the n^{th} term.

$a_n = 2n^2 + 4n - 7$

–5, –3, 3, 13, ... Find a formula for the n^{th} term.

$a_n = 2n^2 - 4n - 3$