The nth Term of a Quadratic Sequence *Fluency* ANSWERS

Find the *n*th term of each sequence

1 2, 5, 10, 17, … $n^2 + 1$

2 −2, 1, 6, 13, … $n^2 - 3$

3 6, 9, 14, 21, … $n^2 + 5$

4 0, 3, 8, 15, … $n^2 - 1$

5 11, 14, 19, 26, … $n^2 + 10$

6 −6, −3, 2, 9, … $n^2 - 7$

Find the *n*th term of each sequence

7 2, 8, 18, 32, … $2n^2$

8 3, 12, 27, 48, … $3n^2$

9 5, 20, 45, 80, … $5n^2$

10 4, 16, 36, 64, … $4n^2$

11 0.5, 2, 4.5, 8, … $\frac{n^2}{2}$

12 10, 40, 90, 160, … $10n^2$

Find the *n*th term of each sequence

13 3, 8, 15, 24, … $n^2 + 2n$

14 0, 2, 6, 12, … $n^2 - n$

15 5, 14, 27, 44, … $2n^2 + 3n$

16 6, 14, 24, 36, … $n^2 + 5n$

17 1, 8, 21, 40, … $3n^2 - 2n$

18 −3, −2, 3, 12, … $2n^2 - 5n$

Find the *n*th term of each sequence

19 6, 12, 20, 30, … $n^2 + 3n + 2$

20 5, 10, 19, 32, … $2n^2 - n + 4$

21 3, 2, 3, 6, … $n^2 - 4n + 6$

22 3, 13, 29, 51, … $3n^2 + n - 1$

23 4, 15, 30, 49, … $2n^2 + 5n - 3$

24 5, 2, 1, 2, … $n^2 - 6n + 10$

Write the first five terms

25 $2n^2 - n + 3$ 4, 9, 18, 31, 48

26 $n^2 + 4n - 2$ 3, 10, 19, 30, 43

27 $3n^2 - 5$ −2, 7, 22, 43, 70

28 $10 - n^2$ 9, 6, 1, −6, −15

29 $\frac{n^2}{2} + n$ 1.5, 4, 7.5, 12, 17.5

30 $n(n+1)$ 2, 6, 12, 20, 30