

## Nth Term of Quadratic Sequences

Find the nth term of these sequences:

- (a) 8, 11, 16, 23, ...
- (b) -4, -1, 4, 11, ...
- (c) 6, 12, 22, 36, ...
- (d) -1, 5, 15, 29, ...
- (e) 4, 13, 28, 49, ...
- (f) 2, 14, 34, 62, ...

- (a)  $n^2 + 7$
- (b)  $n^2 - 5$
- (c)  $2n^2 + 4$
- (d)  $2n^2 - 3$
- (e)  $3n^2 + 1$
- (f)  $4n^2 - 2$

Find the nth term of these sequences:

- (a) 3, 7, 13, 21, ...
- (b) 2, 7, 14, 23, ...
- (c) 9, 18, 31, 48, ...
- (d) 1, 5, 13, 25, ...
- (e) 7, 23, 49, 85, ...
- (f) 7, 15, 29, 49, ...

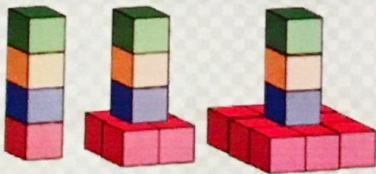
- (a)  $n^2 + n + 1$
- (b)  $n^2 + 2n - 1$
- (c)  $2n^2 + 3n + 4$
- (d)  $2n^2 - 2n + 1$
- (e)  $5n^2 + n + 1$
- (f)  $3n^2 - n + 5$

Find the nth term of these sequences:

- (a) 10.5, 12, 14.5, 18, ...
- (b) 5.5, 9, 13.5, 19, ...
- (c) 1.5, 5, 11.5, 21, ...
- (d) 3.5, 10, 19.5, 32, ...
- (e) 19, 16, 11, 4, -5, ...
- (f) 5, 6, 5, 2, -3, ...

- (a)  $0.5n^2 + 10$
- (b)  $0.5n^2 + 2n + 3$
- (c)  $1.5n^2 - n + 1$
- (d)  $1.5n^2 + 2n$
- (e)  $-n^2 + 20$
- (f)  $-n^2 + 6n - 2$

Here are some patterns made from cubes. Find an expression for the nth term of this sequence.



$$n^2 + 3$$