

Problems with Quadratic Sequences

(a) A quadratic sequence has n th term $n^2 + 13$. Is 302 a term of the sequence? Explain how you know.

(b) A quadratic sequence has n th term $2n^2 + 3n - 1$. Is 116 a term of the sequence? Explain how you know.

(a) A quadratic sequence has n th term $n^2 + 4n - 5$. Given that 187 is a term in the sequence, find the position of this term.

(b) A quadratic sequence has n th term $\frac{1}{2}n^2 - 3n$. Given that $\frac{391}{2}$ is a term in the sequence, find the position of this term.

(a) A quadratic sequence has n th term $an^2 + b$. The third term of the sequence is 16 and the 5th term of the sequence is 64. Find the values of a and b .

(b) A quadratic sequence has n th term $n^2 + cn + d$. The second term of the sequence is 6 and the 10th term of the sequence is 78. Find the values of c and d .

(a) Find the n th term of the sequence whose first four terms are

$$\frac{5}{2} \quad \frac{7}{5} \quad \frac{9}{10} \quad \frac{11}{17}$$

(b) Find the n th term of the sequence whose first four terms are

$$\frac{1}{3} \quad \frac{4}{7} \quad \frac{9}{13} \quad \frac{16}{21}$$

(a) The first three terms of a quadratic sequence are the first three prime numbers. Find the n th term of this quadratic sequence.

(b) A quadratic sequence starts
8, 12, 12, 8, ...

Find the n th term of this sequence and hence the first term in the sequence that is less than -300 .

Problems with Quadratic Sequences

(a) A quadratic sequence has n th term $n^2 + 13$. Is 302 a term of the sequence? Explain how you know.

(b) A quadratic sequence has n th term $2n^2 + 3n - 1$. Is 116 a term of the sequence? Explain how you know.

(a) A quadratic sequence has n th term $n^2 + 4n - 5$. Given that 187 is a term in the sequence, find the position of this term.

(b) A quadratic sequence has n th term $\frac{1}{2}n^2 - 3n$. Given that $\frac{391}{2}$ is a term in the sequence, find the position of this term.

(a) A quadratic sequence has n th term $an^2 + b$. The third term of the sequence is 16 and the 5th term of the sequence is 64. Find the values of a and b .

(b) A quadratic sequence has n th term $n^2 + cn + d$. The second term of the sequence is 6 and the 10th term of the sequence is 78. Find the values of c and d .

(a) Find the n th term of the sequence whose first four terms are

$$\frac{5}{2} \quad \frac{7}{5} \quad \frac{9}{10} \quad \frac{11}{17}$$

(b) Find the n th term of the sequence whose first four terms are

$$\frac{1}{3} \quad \frac{4}{7} \quad \frac{9}{13} \quad \frac{16}{21}$$

(a) The first three terms of a quadratic sequence are the first three prime numbers. Find the n th term of this quadratic sequence.

(b) A quadratic sequence starts
8, 12, 12, 8, ...

Find the n th term of this sequence and hence the first term in the sequence that is less than -300 .