Q1- Write down the next two terms in the following quadratic sequence.

$$10 \quad 14 \quad 20 \quad 28$$

(Total for Question 1 is 2 marks)

Q2- Write down the next two terms in the following quadratic sequence.

$$-4 \quad 1 \quad 10 \quad 23$$

(Total for Question 2 is 2 marks)

Q3- The nth term of a sequence is

$$3n^2 + 4n - 1$$

Work out the 10th term of the sequence

(Total for Question 3 is 2 marks)

Q4- The nth term of a sequence is

$$n^2 + 3n$$

Work out the first 5 terms of the sequence.

(Total for Question 4 is 2 marks)

Q5- Here are the first 5 terms of a quadratic sequence.

6   12   20   30   42

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 5 is 4 marks)

Q6- Here are the first 5 terms of a quadratic sequence.

1   9   21   37   57

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 6 is 4 marks)

Q7- Here are the first 5 terms of a quadratic sequence.

$$16 \quad 20 \quad 26 \quad 34 \quad 44$$

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 7 is 4 marks)

Q8- Here are the first 5 terms of a quadratic sequence.

$$3 \quad 11 \quad 25 \quad 45 \quad 71$$

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 8 is 4 marks)

Q9- Here are the first 5 terms of a quadratic sequence.

$$18 \quad 14 \quad 8 \quad 0 \quad -10$$

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 9 is 4 marks)

Q10- Here are the first 5 terms of a quadratic sequence.

$$-3 \quad -2 \quad 0 \quad 3 \quad 7$$

Find an expression, in terms of n, for the nth term of this sequence

(Total for Question 10 is 4 marks)

Q11- Here are the first 5 terms of a quadratic sequence.

$$5 \quad 9 \quad 15 \quad 23 \quad 33$$

(a) Show that the nth term is n^2+n+3

(b) Hence, determine whether 135 is a term in the sequence

(Total for Question 11 is 6 marks)

Q12- Here are the first 5 terms of a quadratic sequence.

$$-9 \quad 1 \quad 15 \quad 33 \quad 55$$

(a) Show that the nth term is $2n^2 + 4n - 15$

(b) Hence, determine whether 272 is a term in the sequence

(Total for Question 12 is 6 marks)