Exercise 3.1 Arithmetic Sequences 1 (Year 2 Pure Maths)

Link to Solutions: https://youtu.be/tZ6rFuU3qK0

1 (a) Find the sum of the first ten multiples of 7. *(2 marks)*

(b) Show that the sum of the first n multiples of 7 is $\frac{7n}{2}(n+1)$ *(3 marks)*

2 An arithmetic sequence has first term a and common difference d.

The fifth term is -19 and the eleventh term is -43.

(a) Find the value of a and the value of d. *(3 marks)*

(b) The nth term is -79. Find the value of n *(3 marks)*

3 The first three terms of an arithmetic sequence are k, $3k + 2$ and $4k + 7$.

(a) Find the value of k. *(3 marks)*

(b) Find the value of the 60th term of the sequence. *(3 marks)*