2   The first term of an arithmetic progression is -20 and the common difference is 5.

(a) Find the sum of the first 20 terms of the progression. [2]

....

....

....

....

....

....

....

It is given that the sum of the first $2k$ terms is 10 times the sum of the first k terms.

(b) Find the value of k. [3]

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....