

Answer all ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 $f(x) = 2x^2 + (k + 8)x + k$

Show that for all values of k , the equation $f(x) = 0$ has distinct real roots.

(4)

(Total for Question 1 is 4 marks)



P 7 4 2 8 4 A 0 3 3 2