Answer all ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Given that $\frac{a+2\sqrt{5}}{3-\sqrt{5}} = \frac{11+b\sqrt{5}}{2}$ where a is an integer and b is prime,

find the value of a and the value of b Show your working clearly.

(5)

(Total for Question 1 is 5 marks)

