(Total for Question 8 is 11 marks)

9 (a) Expand $\sqrt{1-4x}$ in ascending powers of x up to and including the term in x^3, giving each coefficient as an integer.

(3)

(b) Use your expansion with a suitable value for x to obtain an estimate of $\sqrt{0.76}$
Give your answer correct to 4 decimal places.

(3)

(c) Hence find, to 3 decimal places, an estimate of $\sqrt{19}$

(2)