## HOME EXERCISE 9

Set out carefully all appropriate working.

- $7\frac{5}{6} 1\frac{3}{7} \times 2\frac{5}{8}$ 1. Evaluate: (3) (a)  $x^2 + 4xy - 12y^2$  (b)  $5t^2 + 13t - 6$ 2. Factorise: (3) (b)  $m = \frac{t+g}{r^2}$ 3. Change the subject of the formula to t: (a) w = p - nt(4)4. Over a 3 year period the value of a house increases by 5% in the first year, increases by 10% in the second year and finally decreases by 15% in the third year. The initial value of the house was  $\pounds 80\,000$ . Calculate the value of the house at the end of the 3 years. (not  $\pm 80000$ ) (3) 5. In a biology experiment the lengths Lengths (cm) of some seedlings were recorded. 0 8 9 The results are shown in the 2 3 1 5 4 7 8 stem-and-leaf diagram. 5 2 2 3 5 7 9 0 3 5 3 1 6 3 6 3.6 n = 19= (a) Make a five figure summary of the data. (4)
  - (b) Construct a boxplot to illustrate this information. (scale below)(2)(c) Calculate the semi-interquartile range.(1)

Length



Total 20 marks