## HOME EXERCISE 9

Set out carefully all appropriate working.

1. Evaluate: $\quad 7 \frac{5}{6} \square 1 \frac{3}{7} \square 2 \frac{5}{8}$
2. Factorise:
(a) $x^{2}+4 x y-12 y^{2}$
(b) $5 t^{2}+13 t-6$
3. Change the subject of the formula to $t$ :
(a) $w=p \square n t$
(b) $m=\frac{t+g}{r^{2}}$
4. Over a 3 year period the value of a house increases by $\mathbf{5 \%}$ in the first year, increases by $\mathbf{1 0 \%}$ in the second year and finally decreases by $\mathbf{1 5 \%}$ in the third year. The initial value of the house was $£ 80000$.

Calculate the value of the house at the end of the 3 years. (not $£ 80000$ )
5. In a biology experiment the lengths of some seedlings were recorded.
The results are shown in the stem-and-leaf diagram.

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(a) Make a five figure summary of the data.
(b) Construct a boxplot to illustrate this information. (scale below)
(c) Calculate the semi-interquartile range.

Length


Total 20 marks

