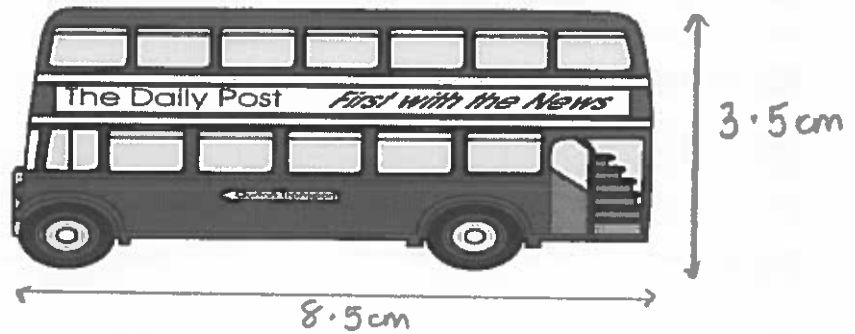


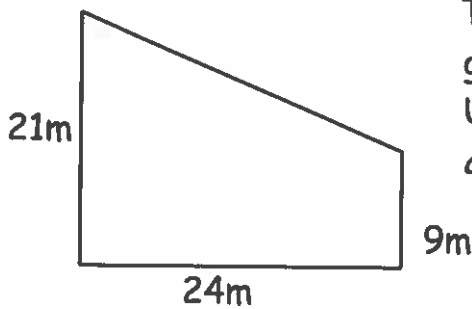
**Enlargement & Reduction**  
S1-S3, National 4

1. The bus has been drawn to a scale of  $1\text{cm} = 2\text{m}$ . Calculate the actual length of the bus.

$3.5\text{cm} \stackrel{\times 2}{=} 7\text{m}$   
 $8.5\text{cm} = 17\text{m}$



2.



This sketch shows the dimensions of a garden.

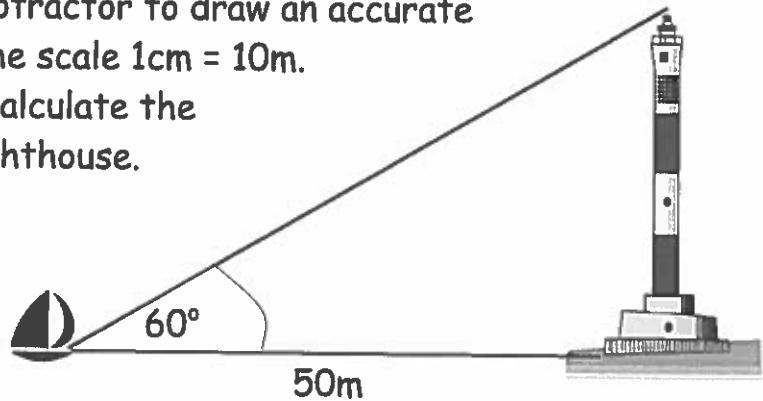
Using a scale of  $1\text{cm} = 3\text{m}$  make an accurate drawing.

New lengths should be 7cm, 8cm and 3cm.

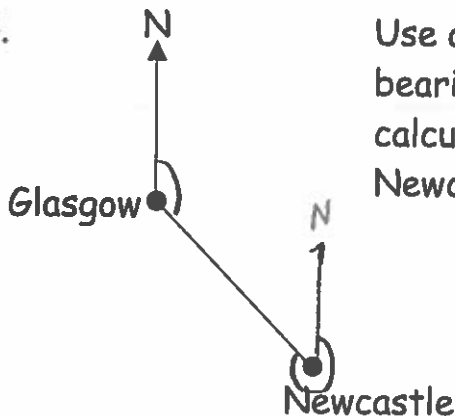
3. a) Use a ruler and a protractor to draw an accurate scale drawing. Use the scale  $1\text{cm} = 10\text{m}$ .  
 b) From your drawing calculate the actual height of the lighthouse.

a)  $50\text{m} = 5\text{cm}$   
 Angle does not change.

b) Approx. 7.5m



4.



Use a protractor to measure the three-figure bearing of Newcastle from Glasgow, and calculate the bearing of Glasgow from Newcastle.

a)  $145^\circ$   
 b)  $315^\circ$