GEOMETRY (Q 4, PAPER 2)

1998

- 4 (a) In the triangle abc, |ad| = |bd|, $|\angle abd| = |\angle dbc|$ and $|\angle dab| = 48^{\circ}$. Find $|\angle dcb|$.
 - (b) Prove that if the lengths of two sides of a triangle are unequal, then the degreemeasures of the angles opposite to them are unequal, with the greater angle opposite to the longer side.
 - (c) The triangle *xyz* is the image of the triangle *dgh* under the enlargement, centre *o*, with |dg| = 8, |xz| = 12 and |xy| = 9.



- (i) Find the scale factor of the enlargement.
- (ii) Find |dh|.
- (iii) The area of the triangle xyz is 27 square units. Find the area of the triangle dgh.



