GEOMETRY (Q 4, PAPER 2)

2011

4. **(a)** In the diagram, the line *l* passes through the point *A* and is parallel to *BC*.
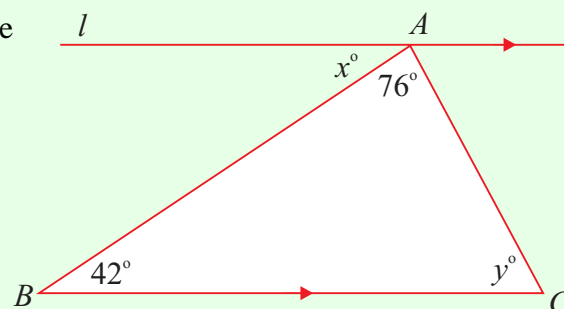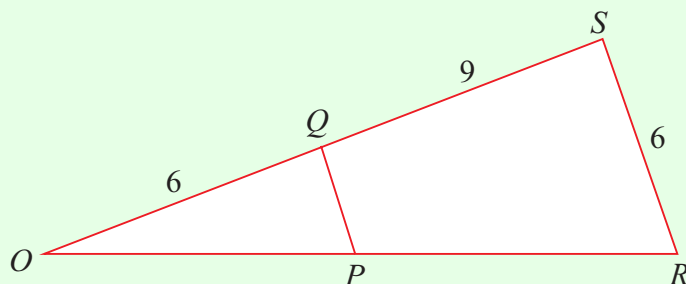
   (i) Find *x*.

   (ii) Find *y*.

(b) Prove that the sum of the lengths of any two sides of a triangle is greater than that of the third side.

(c) The triangle *ORS* is the image of the triangle *OPQ* under an enlargement of centre *O*. $|OQ| = 6$, $|QS| = 9$ and $|RS| = 6$.

   (i) Find the scale factor of the enlargement.

   (ii) Find $|PQ|$.

   (iii) Given that the area of the triangle *OPQ* is 7.2 square units, find the area of the triangle *ORS*.

   (iv) Find the area of the quadrilateral *PRSQ*.

ANSWERS
4   (a) (i) 42° (ii) 62°
    (b) (i) 2.5   (ii) 2.4 units
        (iii) 45 square units   (iv) 37.8 square units