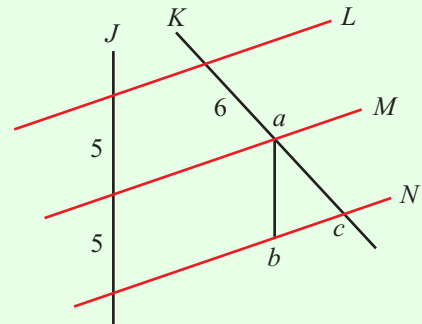


GEOMETRY (Q 4, PAPER 2)

2003

- 4 (a) In the diagram, L , M and N are parallel lines. They make intercepts of the indicated lengths on J and K . ab is parallel to J .



- (i) Write down the length of $[ab]$.
- (ii) Write down the length of $[ac]$.
- (b) (i) Prove that the sum of the degree-measures of the angles of a triangle is 180° .
- (ii) Deduce that the degree-measure of an exterior angle of a triangle is equal to the sum of the degree-measures of the two remote interior angles.
- (c) (i) Construct a triangle abc in which $|ab| = 10.5$ cm, $|bc| = 5$ cm and $|ac| = 8.5$ cm.
- (ii) Choose any point p that is *outside* the triangle and construct the image of abc under the enlargement of scale factor 0.4 and centre p .
- (iii) Given that the area of this image triangle is 3.36 cm², calculate the area of the original triangle abc .

ANSWERS

4 (a) (i) 5 (ii) 6

(c) (iii) 21 cm²