

MATHEMATICS PROJECT

CLASS: 8

TOPIC: AREA OF A PARALLELOGRAM

OBJECTIVE: To find a formula for the area of a parallelogram

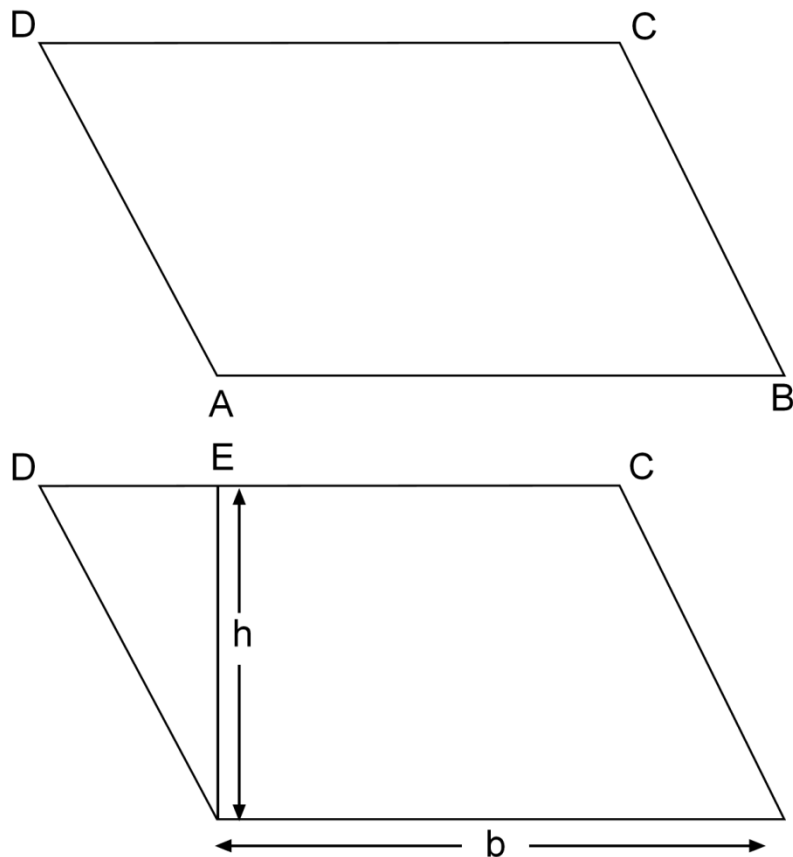
PRE-REQUISITE KNOWLEDGE: Formula for the area of a parallelogram

MATERIALS REQUIRED:

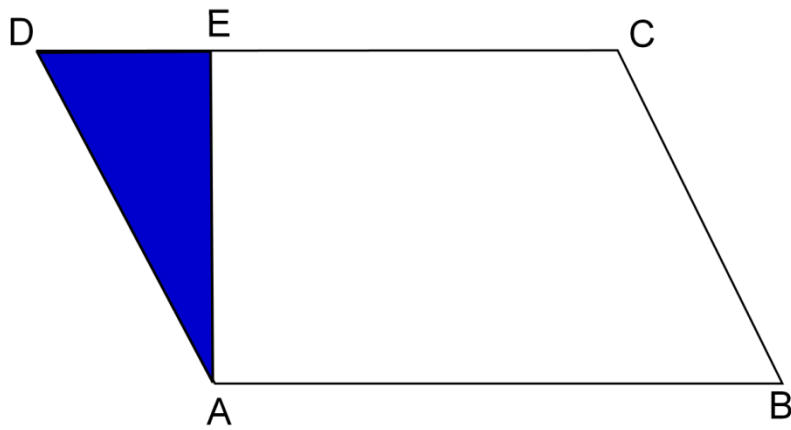
1. Geometry box
2. Practical workbook
3. Coloured chart papers – yellow, blue and red
4. Scissors
5. Scale
6. Sketch pen
7. Adhesives or glue sticks
8. Tracing papers – 2

PROCEDURE:

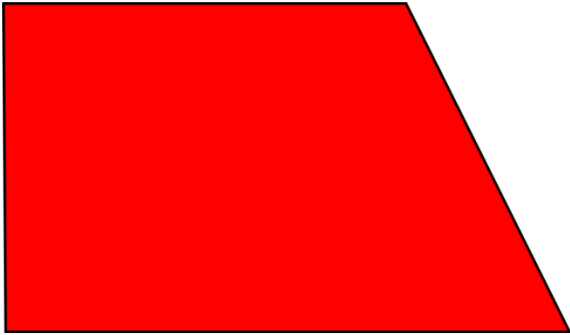
1. Draw any parallelogram of base b and height h on a yellow coloured chart paper.



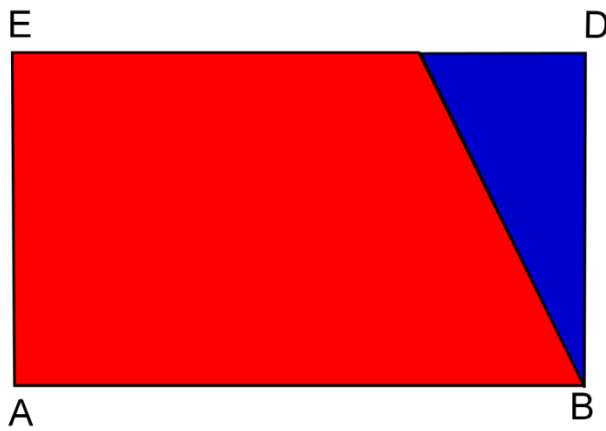
2. From A draw AE perpendicular to DC. Place a tracing paper on the parallelogram ABCD. Trace out ΔADE .
3. Place the tracing paper on a blue chart paper. Trace and cut the triangle ΔADE from it.



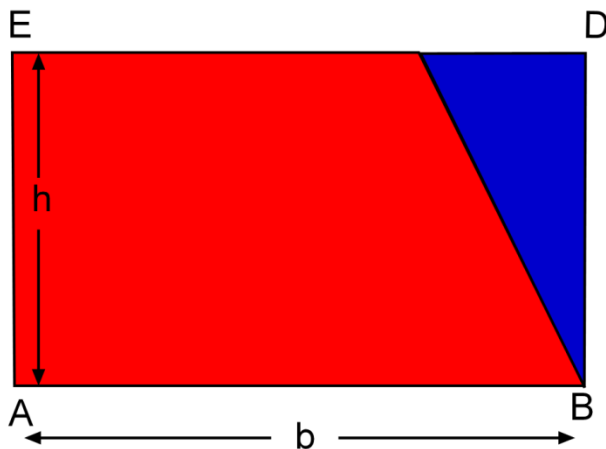
4. Similarly with the help of the tracing paper, trace out the remaining portion of the parallelogram ABCD on it (quadrilateral ABCE).
5. Now place the tracing paper on a red chart paper. Trace and cut the quadrilateral ABCE from it.



6. Now paste the quadrilateral ABCE and ΔADE on the yellow chart paper as shown in the figure.



7. We get the rectangle ABDE.
8. Hence area enclosed by the parallelogram ABCD and the rectangle ABDE are equal.



RESULT:

Area of the parallelogram ABCD = area of the rectangle ABDE = $b \times h = \text{base} \times \text{height}$

LAST DATE OF SUBMISSION OF PROJECT: 28th November, 2014