

Assignment I (ICSE Class 10 2018)

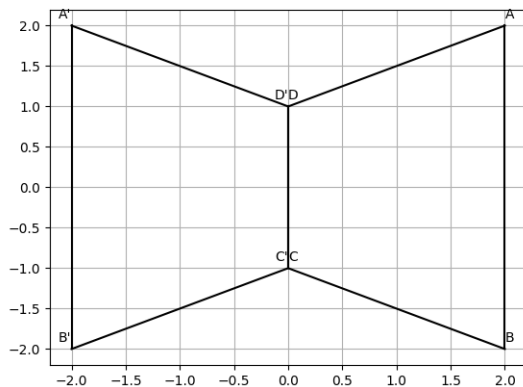
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Problem 1 (5. c). Use graph paper for this question
(Take 2cm = 1 unit along both x and y axis).
 $ABCD$ is a quadrilateral whose vertices are $A(2,2)$,
 $B(2,-2)$, $C(0,-1)$ and $D(0,1)$.

- (i) Reflect quadrilateral $ABCD$ on the y -axis and name it as $A'B'CD$.
- (ii) Write down the coordinates of A' and B' .
- (iii) Name two points which are invariant under the above reflection.
- (iv) Name the polygon $A'B'CD$.

Solution:

- (i) The plot of quadrilateral $ABCD$ after reflection on the y -axis is as shown:



- (ii) The coordinates of A' and B' are $(-2,2)$ and $(-2,-2)$ respectively.
- (iii) The two points which are invariant under reflection are $C(0,-1)$ and $D(0,1)$.
- (iv) The polygon $A'B'CD$ is an isosceles trapezium.