



Exercise 12

Q1

Answer :

Following are the parallel edges of the top.

$AD \parallel BC$

This is because AD and BC will not intersect even if both these line segments are produced indefinitely in both the directions.

$AB \parallel DC$

This is because AB and DC will not intersect even if both these line segments are produced indefinitely in both the directions.

Q2

Answer :

The groups of parallel edges are $(AD \parallel GH \parallel BC \parallel FE)$, $(AB \parallel DC \parallel GF \parallel HE)$ and $(AH \parallel BE \parallel CF \parallel DG)$.

The above mentioned groups of edges are parallel because they will not meet each other if produced indefinitely to both sides.

Q3

Answer :

(i)

$DE \parallel BC$

This is because they do not intersect each other.

(ii)

$AB \parallel DC$ and $AD \parallel BC$

This is because these pairs of line segments do not intersect each other.

(iii)

$AB \parallel DC$ and $AD \parallel BC$

This is because these pairs of line segments do not intersect each other.

AB does not intersect DC and AD does not intersect BC .

(iv)

$LM \parallel RQ, RS \parallel PM \text{ and } LS \parallel PQ$

These pairs of line segments are non-intersecting.

So, these pairs of lines are parallel.

(v)

$AB \parallel DC, AB \parallel EF. DC \parallel EF$

$AC \parallel BD, CE \parallel DF$

These pairs of line segments are non-intersecting.

So, these pairs of lines are parallel.

Q4

Answer :

(i) Distance between l and m is 1.3 cm.

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