



## 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.

\*\*\*\*\* END \*\*\*\*\*