RS Aggrawal Solutions for Class 6 Maths Chapter 12 Parallel Lines

ANSWER:

Following are the parallel edges of the top:

AD∥BCThis is because AD and BC will not intersect even if both these line segments are produced indefinitely in both the directions.AB∥DCThis is because AB and DC wi ll not intersect even if both these line segments are produced indefinitely in both the di rections.AD∥BCThis is because AD and BC will not intersect even if both these line segme nts are produced indefinitely in both the directions.AB∥DCThis is because AB and DC will n ot intersect even if both these line segments are produced indefinitely in both the directions.

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ANSWER:

The groups of parallel edges are (AD∥GH∥BC∥FE), (AB∥DC∥GF∥HE) and (AH∥BE∥ CF∥DG).The above mentioned groups of edges are parallel because they will not meet each other if produced infinitely to both sides.The groups of parallel edges are (AD∥GH ∥BC∥FE), (AB∥DC∥GF∥HE) and (AH∥BE∥CF∥DG).The above mentioned groups of edges ar e parallel because they will not meet each other if produced infinitely to both sides.

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ANSWER:

(i)
DE∥BCThis is because they do not intersect each other.DE∥BCThis is because they do not intersect each other.
(ii)
AB∥DC and AD∥BC This is because these pairs of line segments do not intersect each other.AB∥DC and AD∥BC This is because these pairs of line segments do not intersect eac h other.
(iii)
AB∥DC and AD∥BC This is because these pairs of line segments do not intersect eac h other.AB does not intersect DC and AD does not intersect BC.AB∥DC and AD∥BC Thi

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s 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∥RQ, RS∥PM and LS∥PQLM∥RQ, RS∥PM and LS∥PQ
These pairs of line segments are non-intersecting.
So, these pairs of lines are parallel.

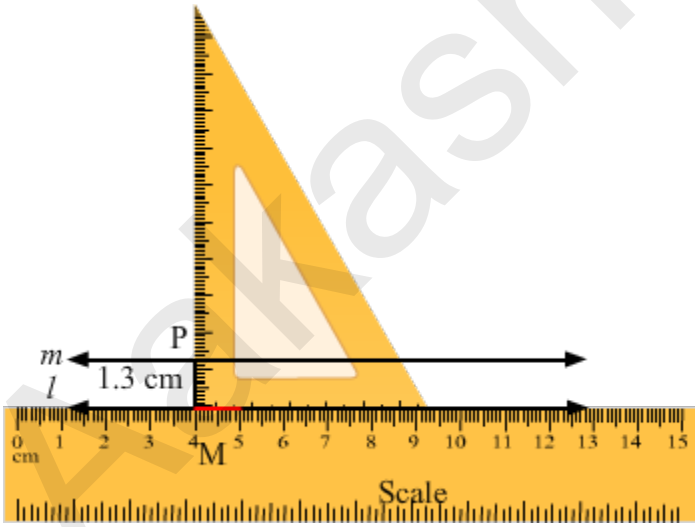
(v)
AB∥DC, AB∥EF. DC∥EFAC∥BD, CE∥DFAB∥DC, AB∥EF. DC∥EFAC∥BD, CE∥DF
These pairs of line segments are non-intersecting.
So, these pairs of lines are parallel.

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ANSWER:

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

Place the ruler so that one of its measuring edges lies along the line *l*. Hold it with one hand. Now place a set square with one arm of the right angle coinciding with the edge of the ruler. Draw the line segment PM along the edge of the set square, as shown in the figure. Then, measure the distance (PM) between *l* and *m*, which will be equal to 1.3 cm.

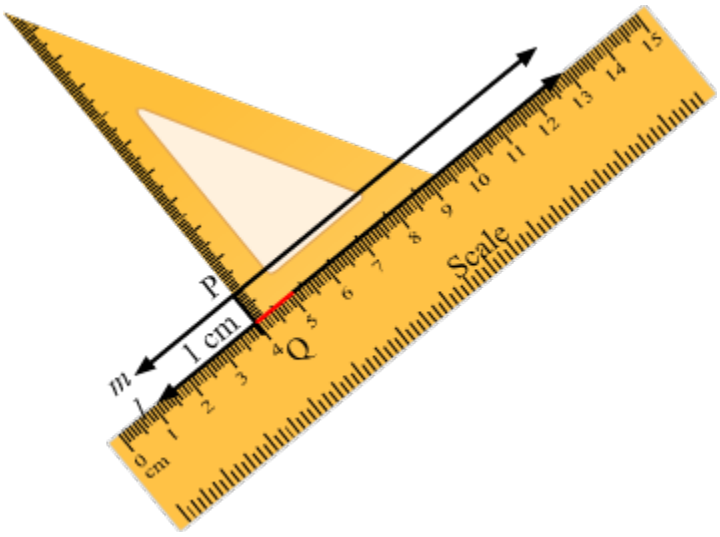


(ii) Distance between *l* and *m* is 1 cm.

Place the ruler so that one of its measuring edges lies along the line *l*. Hold it with one hand. Now place a set square with one arm of the right angle coinciding with the edge of the ruler. Draw the line segment PM along the edge of the set square, as shown in figure. Then,

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measure the distance (PQ) between *l* and *m* as 1 cm.



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ANSWER:

At point A, AB is the perpendicular distance between *l* and *m.*
At point C, CD is the perpendicular distance between *l* and *m.*
The perpendicular distance between two parallel lines is same at all points.
∴ CD = AB = 2.3 cm

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ANSWER:

Line segments AB and CD will intersect if they are produced endlessly towards the ends A and C, respectively.

Therefore, they are not parallel to each other.

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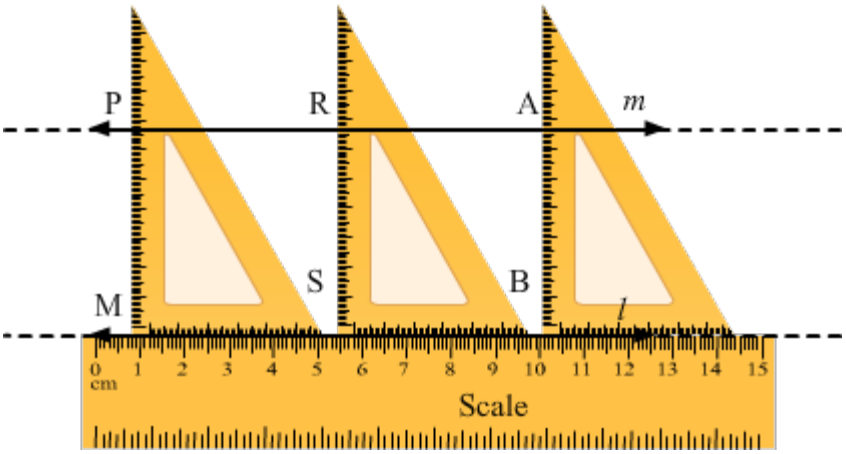
ANSWER:

(i) Place the ruler so that one of its measuring edges lies along the line *l*. Hold it firmly with one hand. Now place a set square with one arm of the right angle coinciding with the edge of the ruler. Draw line segments between *l* and *m* (say PM, RS, AB) with the set square.

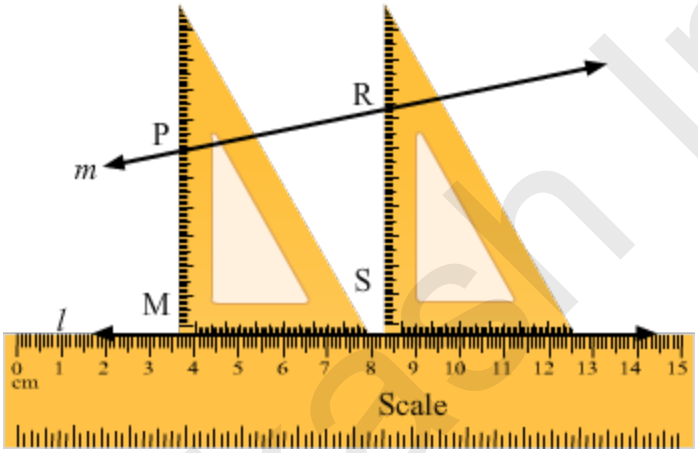
Now, we see that PM = AB = RS.

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Thus, we can say that $l \parallel m$.



(ii) In this case, we see that when we draw line segments between *l* and *m,* they are unequal, i.e. $PM \neq RS$PM≠RS.
Therefore*, l* is not parallel to *m*.



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ANSWER:

(i) True
The statement is true because such lines do not intersect even when produced.

(ii) True
Perpendicular distance between two parallel lines is same at all points on the lines.

(iii) True
If the corresponding lines are produced infinitely, they will not intersect. Hence, they are

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parallel.

(iv) True
The corresponding lines determined by them will not intersect. Hence, they are parallel to each other.

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