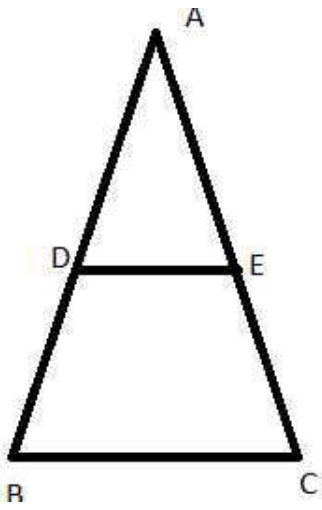


RD SHARMA
Solutions
Class 6 Maths
Chapter 15
EX 15.1

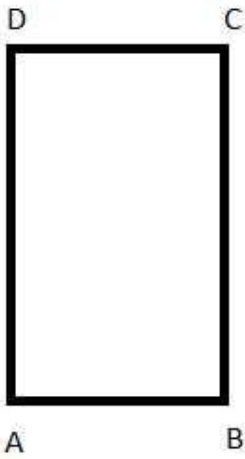
Question 1

Identify parallel line segments:

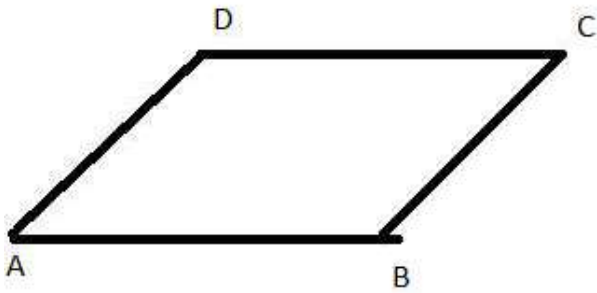
i)



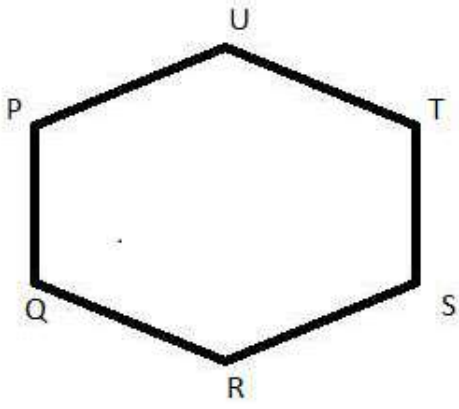
ii)



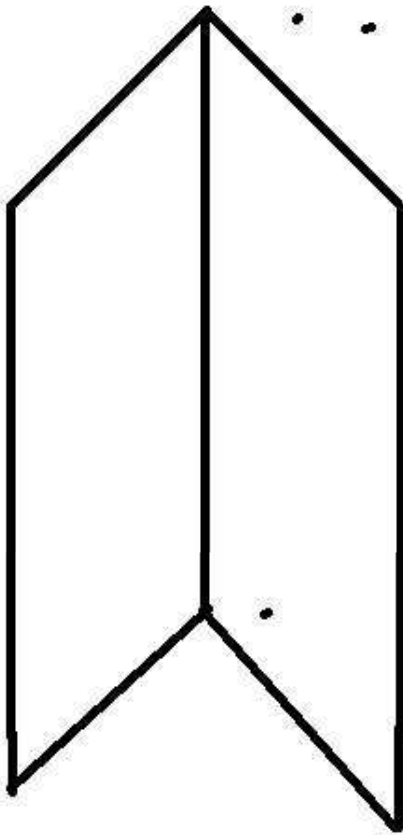
iii)



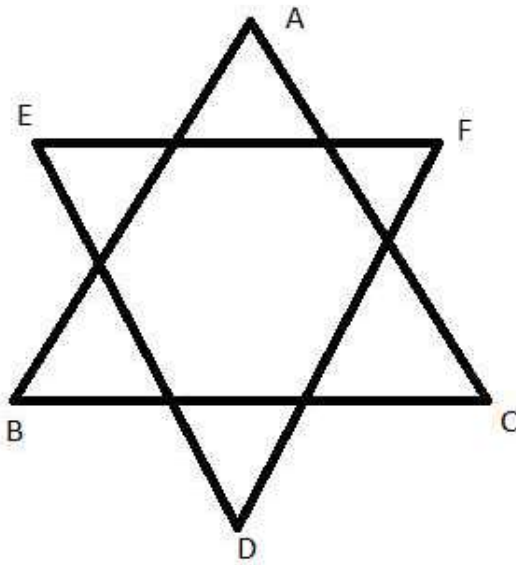
iv)



v)



vi)

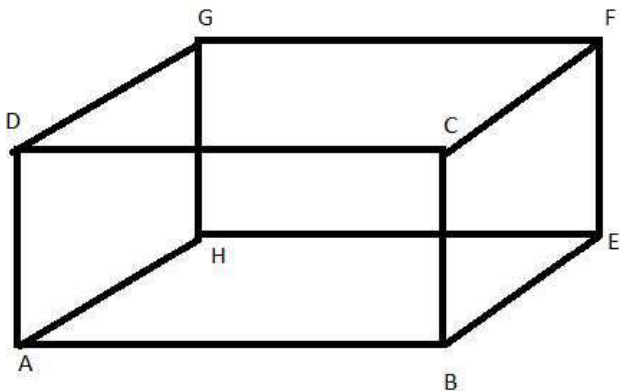


Answers

1. $BC \parallel DE$
2. $AB \parallel DC$, $AD \parallel BC$
3. $AB \parallel DC$, $AD \parallel BC$
4. $PQ \parallel TS$, $UT \parallel QR$, $UP \parallel SR$
5. $AB \parallel DC \parallel EF$, $AD \parallel BC$ and $DE \parallel CF$
6. $BC \parallel EF$, $AB \parallel DF$ and $AC \parallel DE$

Question 2

Name the pairs of all possible parallel edges of the pencil box whose figure is shown in the figure



AHIDGICFIBE

ABIDCIGFIHE

ADIHGIEFIBC

Question 3

In the figure, do the segments AB and CD intersect? are they parallel? Give reasons.

Chapter 15: Pair of Lines and Transversal Exercise 15.2

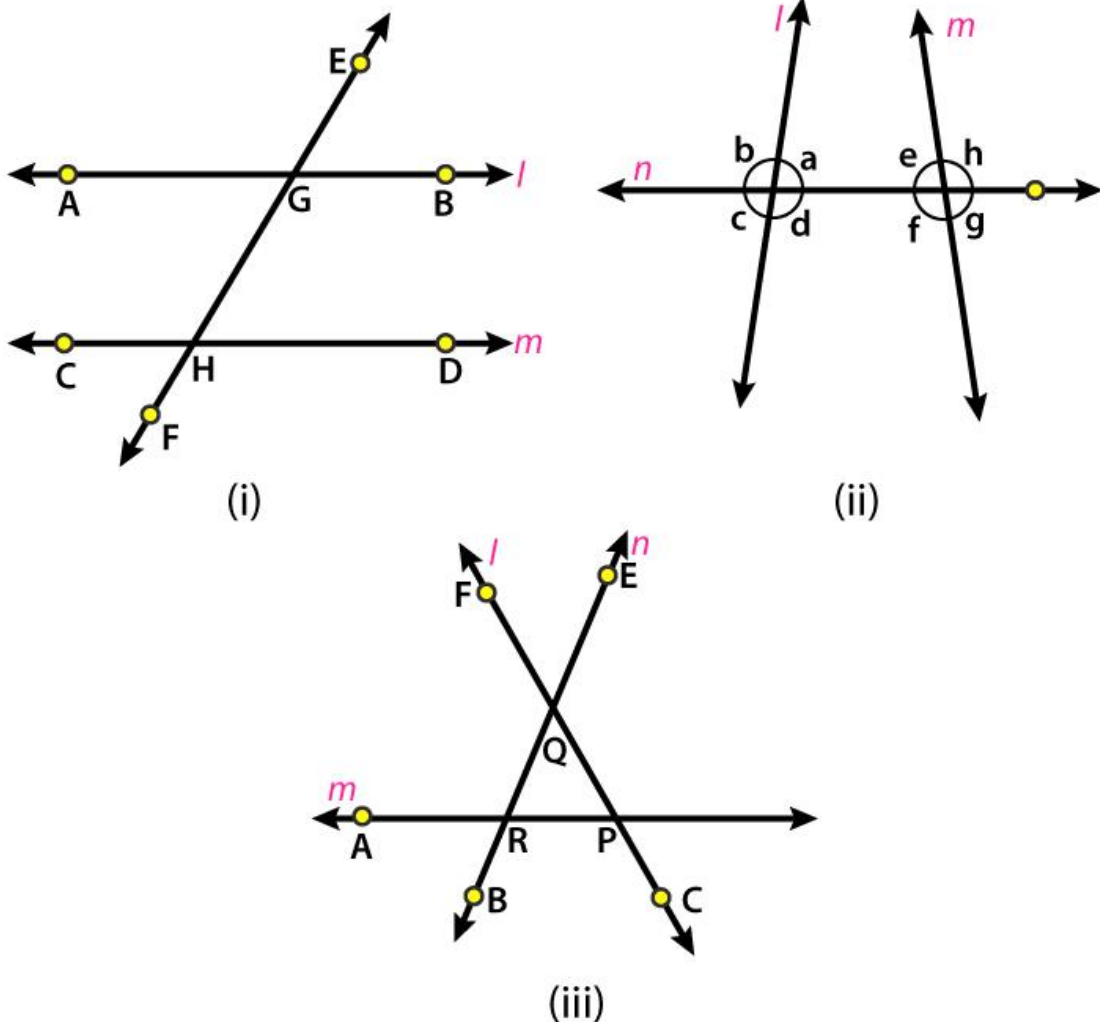
1. In Fig. 15.17, line n is a transversal to lines l and m . Identify the following:

(i) Alternate and corresponding angles in Fig. 15.17 (i).

(ii) Angles alternate to $\angle d$ and $\angle g$ and angles corresponding to $\angle f$ and $\angle h$ in Fig. 15.17 (ii).

(iii) Angle alternative to $\angle PQR$, angle corresponding to $\angle RQF$ and angle alternate to $\angle PQE$ in Fig. 15.17 (iii).

(iv) Pairs of interior and exterior angles on the same side of the transversal in Fig. 15.17 (ii).



Solution:

(i) Alternate interior angles are $\angle BGH$ and $\angle CHG$; $\angle AGH$ and $\angle CHF$

Alternate exterior angles are $\angle AGE$ and $\angle DHF$; $\angle EGB$ and $\angle CHF$

Corresponding angles are $\angle EGB$ and $\angle GHD$; $\angle EGA$ and $\angle GHC$; $\angle BGH$ and $\angle DHF$; $\angle AGF$ and $\angle CHF$.

(ii) Angles alternate to $\angle d$ and $\angle g$ are $\angle e$ and $\angle b$ and angles corresponding to $\angle f$ and $\angle h$ are $\angle c$ and $\angle a$.

(iii) From the figure we know that l is transversal to m and n .

Angle alternate to $\angle PQR$ is $\angle QRA$

Angle corresponding to $\angle RQF$ is $\angle BRA$

Angle alternate to $\angle PQE$ is $\angle BRA$

(iv) Interior angles are $\angle d$, $\angle f$ and $\angle a$, $\angle e$ and exterior angles are $\angle c$, $\angle g$ and $\angle b$, $\angle h$

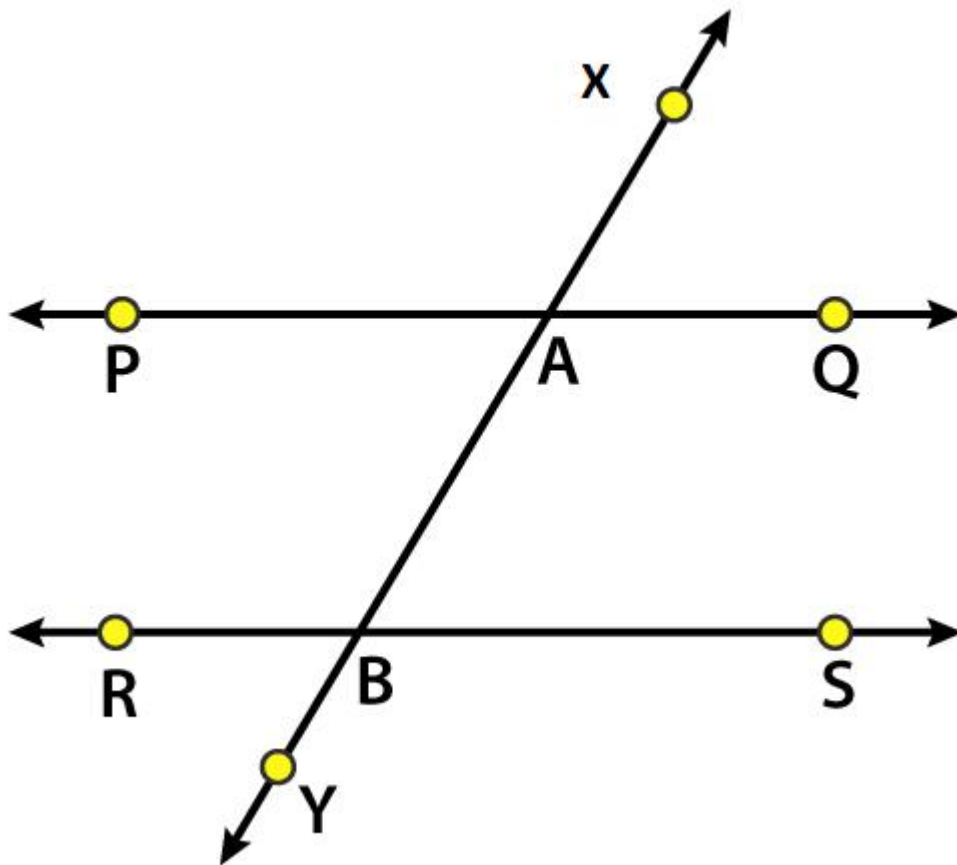
2. Match column A and column B with the help of the Fig. 15.18:

Column A – Column B

(i) Vertically opposite angles – (i) $\angle PAB$ and $\angle ABS$

(ii) Alternate angles – (ii) $\angle PAB$ and $\angle RBY$

(iii) Corresponding angles – (iii) $\angle PAB$ and $\angle XAQ$



Solution:

- (i) $\angle PAB$ and $\angle XAQ$ are vertically opposite angles
- (ii) $\angle PAB$ and $\angle ABS$ are alternate angles
- (iii) $\angle PAB$ and $\angle RBY$ are corresponding angles