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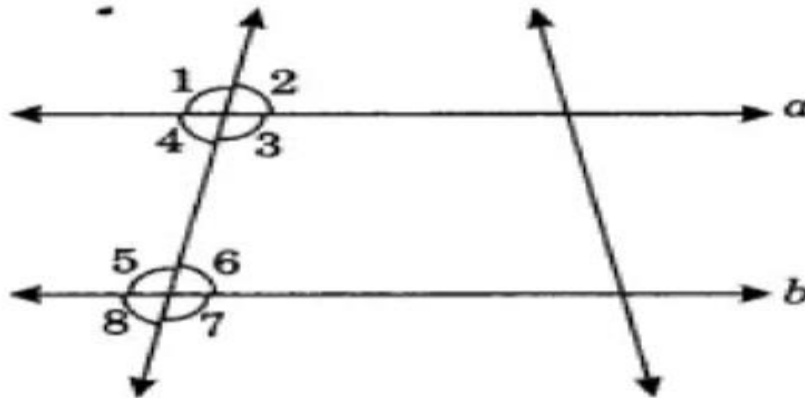
(Affiliated to CBSE up to +2 Level)

CLASS: VII

SUB.: MATHS (NCERT BASED)

DATE: 29-08-2020

State the property that is used in each of the following statements?



- (i) If $a \parallel b$, then $\angle 1 = \angle 5$
- (ii) If $\angle 4 = \angle 6$, then $a \parallel b$
- (iii) If $\angle 4 + \angle 5 = 180^\circ$, then $a \parallel b$

Solution:

(i) Given $a \parallel b$

$\therefore \angle 1 = \angle 5$ (Pair of corresponding angles)

(ii) Given: $\angle 4 = \angle 6$

$\therefore a \parallel b$ [If pair of alternate angles are equal, then the lines are parallel]

(iii) Given: $\angle 4 + \angle 5 = 180^\circ$

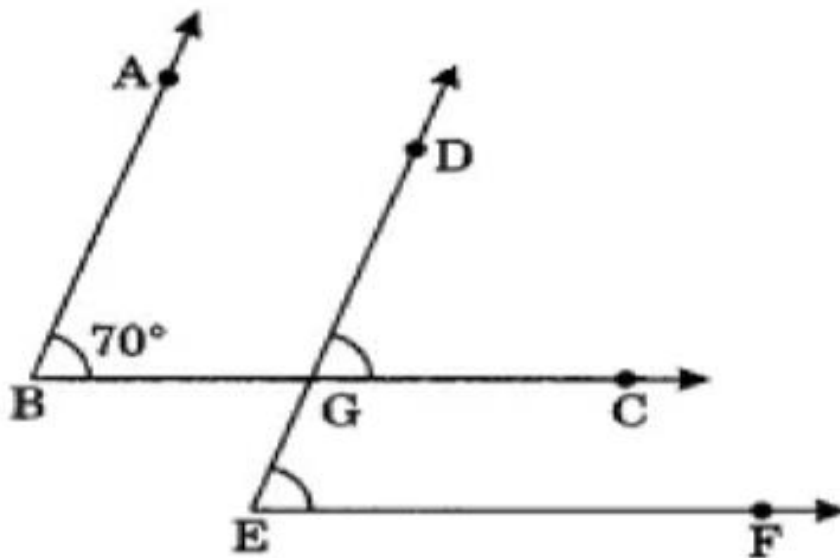
$\therefore a \parallel b$ [If sum of interior angles is 180° , then the lines are parallel]

Ex 5.2 Class 7 Maths Question 5.

In the given figure, the arms of two angles are parallel. If $\angle ABC = 70^\circ$, then find

(i) $\angle DGC$

(ii) $\angle DEF$



Solution:

Given

$AB \parallel DE$

$BC \parallel EF$

$\angle ABC = 70^\circ$

$\angle DGC = \angle ABC$

(i) $\angle DGC = 70^\circ$ (Pair of corresponding angles)

$\angle DEF = \angle DGC$

(ii) $\angle DEF = 70^\circ$ (Pair of corresponding angles)