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(Affiliated to CBSE up to +2 Level)

SUB.: MATHS (NCERT BASED)

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CLASS: VII



## Exercise 5.3

1. State the property which is used in each of the following statements:

- (a) If  $l \parallel m$ , then  $\angle 1 = \angle 5$ .
- (b) If  $\angle 4 + \angle 5 = 180^\circ$ , then  $l \parallel m$ .
- (c) If  $l \parallel m$ , then  $\angle 4 = \angle 6$ .

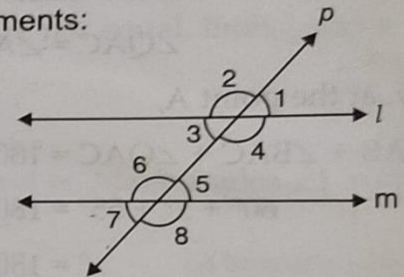


Fig. 5.41

2. In Fig. 5.42, find the unknown angles.

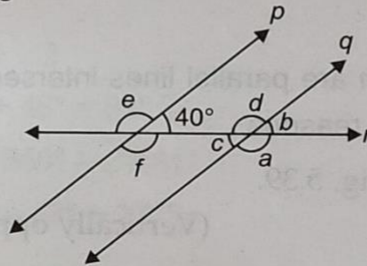


Fig. 5.42

3. In Fig. 5.43, the arms of two angles are parallel. If  $\angle ABC = 65^\circ$ , find:

- (a)  $\angle DGC$
- (b)  $\angle DEF$

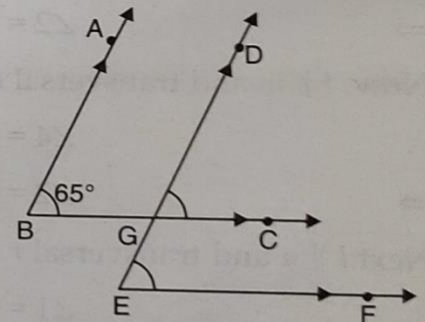
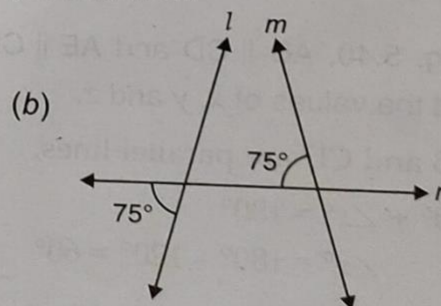
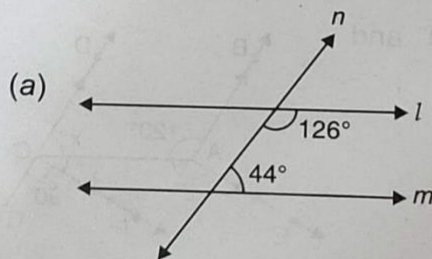


Fig. 5.43

4. In the figures given below, decide whether  $l$  is parallel to  $m$ :



Lines and Angles

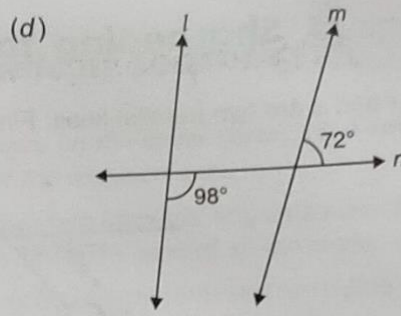
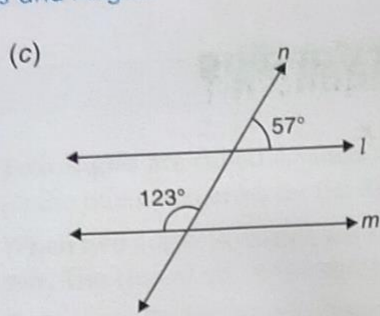


Fig. 5.44

5. In Fig. 5.45, line  $p \parallel$  line  $q$  and  $r$  is a transversal. If  $\angle 2 = 60^\circ$ , find  $\angle 1$ .

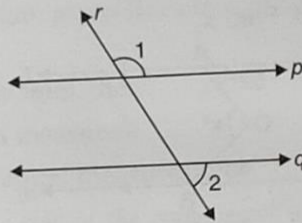


Fig. 5.45

6. In Fig. 5.46, a transversal  $p$  cuts two parallel lines  $l$  and  $m$  at points A and B respectively. If  $\angle 8 = 133^\circ$ , find all the other angles.

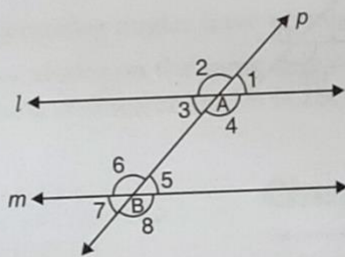


Fig. 5.46

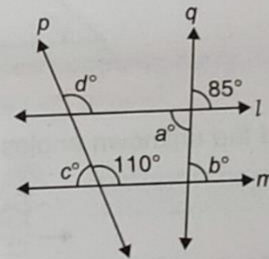


Fig. 5.47

7. In Fig. 5.47,  $l \parallel m$ . Find the values of  $a$ ,  $b$ ,  $c$  and  $d$ , giving reasons.

8. In Fig. 5.48, a transversal  $n$  intersects two lines  $l$  and  $m$  such that  $\angle 1 = 62^\circ$  and  $\angle 2 = 62^\circ$ . Are the lines  $l$  and  $m$  parallel?

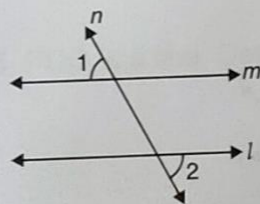


Fig. 5.48

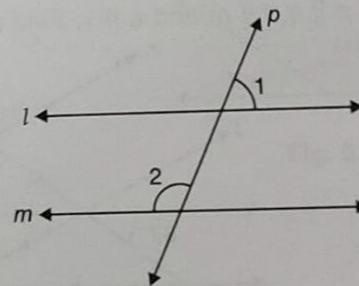


Fig. 5.49