Exercise 6.3

Question 2:

In Fig. 6.10, $\angle 1 = 60°$ and $\angle 6 = 120°$. Show that the lines m and n are parallel.

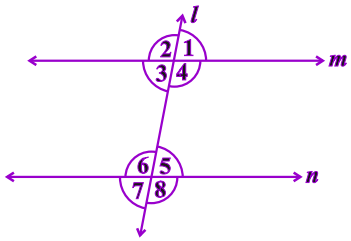

Fig. 6.10

Answer 2:

Given:

In figure, $\angle 1 = 60°$ and $\angle 6 = 120°$

To prove:

m $\parallel$ n.

Proof:

Since,	$\angle 1 = 60°$ and $\angle 6 = 120°$	
Here,	$\angle 1 = \angle 3$	[vertically opposite angles]
$\therefore$	$\angle 3 = \angle 1 = 60°$	
Now,	$\angle 3 + \angle 6 = 60° + 120°$	
$\Rightarrow$	$\angle 3 + \angle 6 = 180°$	

The sum of two interior angles on same side of l is 180° , hence the lines are parallel.

Hence, m$\parallel$ n