

1 i) $\angle 3$ and $\angle 6$
= interior alternate angles.

ii) $\angle 2$ and $\angle 4$
= adjacent angles.

iii) $\angle 3$ and $\angle 7$
= corresponding angles.

iv) $\angle 2$ and $\angle 7$
= exterior alternate angles.

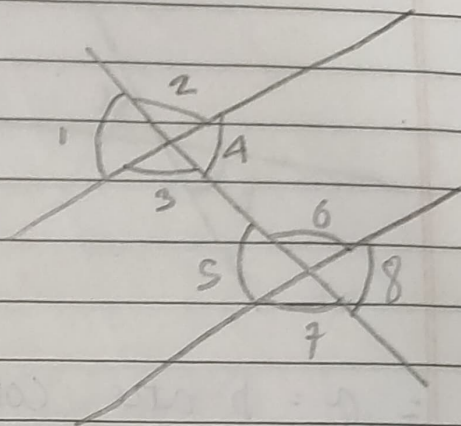
v) $\angle 4$ and $\angle 6$
= allied or co-interior angles.

vi) $\angle 1$ and $\angle 8$
= exterior alternate angles.

vii) $\angle 1$ and $\angle 5$
= corresponding angles

viii) $\angle 1$ and $\angle 4$
= vertically opposite angles.

ix) $\angle 5$ and $\angle 7$
= adjacent angles



2 i) $\angle 1$ and $\angle 4$
= vertically opposite angles

ii) $\angle 4$ and $\angle 7$
= interior alternate angles

iii) $\angle 10$ and $\angle 12$
= vertically opposite angles.

iv) $\angle 7$ and $\angle 13$
= corresponding angles.

v) $\angle 6$ and $\angle 8$
= vertically opposite angles

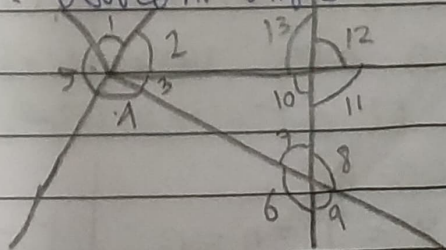
vi) $\angle 11$ and $\angle 8$
= co-interior angles

vii) $\angle 7$ and $\angle 9$
= vertically opposite angles

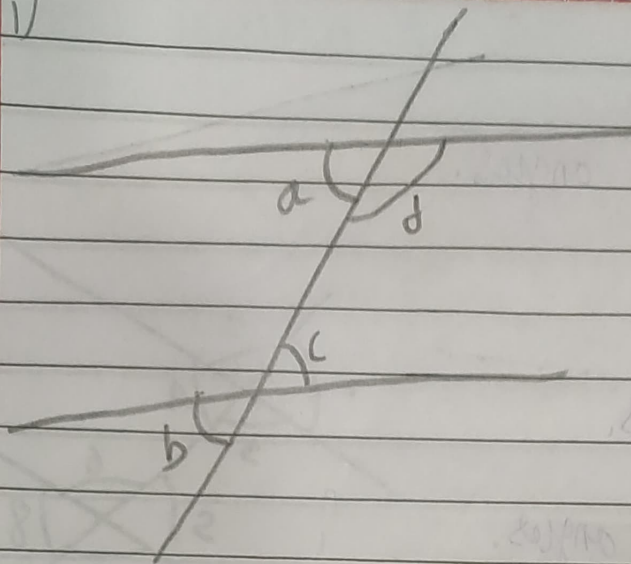
viii) $\angle 4$ and $\angle 5$
= adjacent angles

ix) $\angle 2$ and $\angle 13$
= co-interior angles

x) $\angle 6$ and $\angle 7$
= adjacent angles.



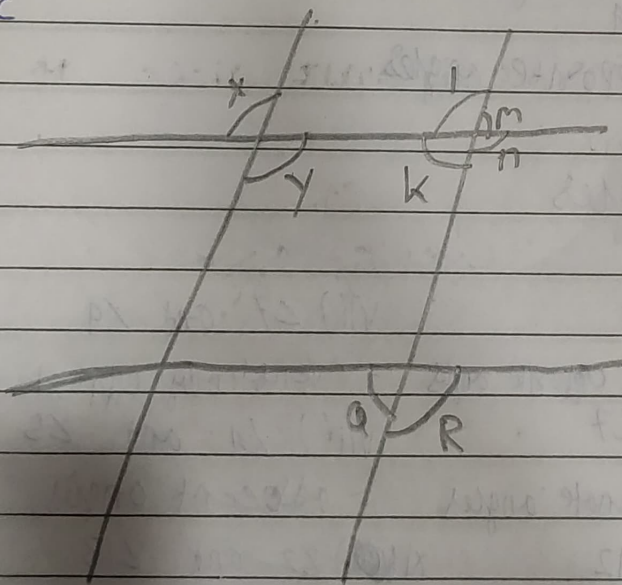
3-i)



$a = b$ are corresponding angles
 $b = c$ are vertically opposite angles
 $a = c$ are alternate angles

So we get
 $a = b = c$

ii)



$x = y$ are vertically opposite angles
 $y = l$ are alternate angles
 $x = l$ are corresponding angles
 $l = n$ are vertically opposite angles
 $n = r$ are corresponding angles

So we get

$x = y = l = n = r$

$M = k$ - vertically opposite angles

$k = q$ - corresponding angles

Hence $M = k = q$