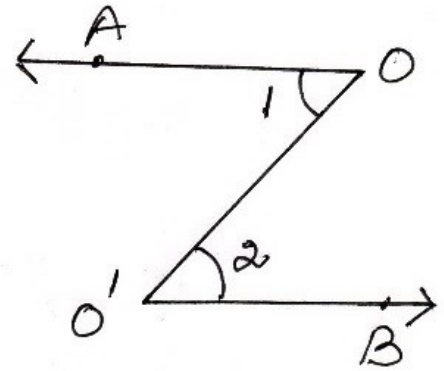
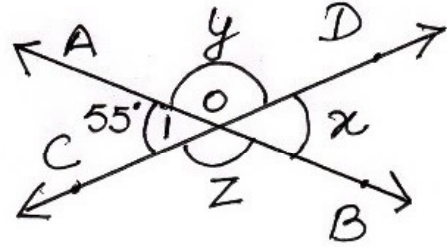


11. no.
no common vertex



12. $\angle = x = 55^\circ$ (vert. opp. \angle s)



$\angle + y = 180^\circ$
(linear pair)

$55 + y = 180^\circ$

$\Rightarrow y = 180 - 55$
 $= 125$

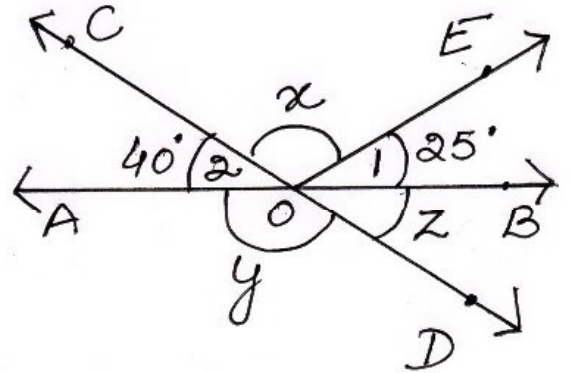
$z = y = 125^\circ$ (vertically opposite \angle s)

13.

$\angle 2 + y = 180^\circ$

$40 + y = 180$

$\Rightarrow y = 180 - 40$
 $= 140^\circ$



$\angle 2 + x + \angle 1 = 180^\circ$ (sum of \angle s on a st. line)

$40 + x + 25 = 180^\circ$

$\Rightarrow x = 180 - 65$
 $= 115^\circ$

$z = \angle 2 = 40^\circ$ (vertically opp. \angle s)