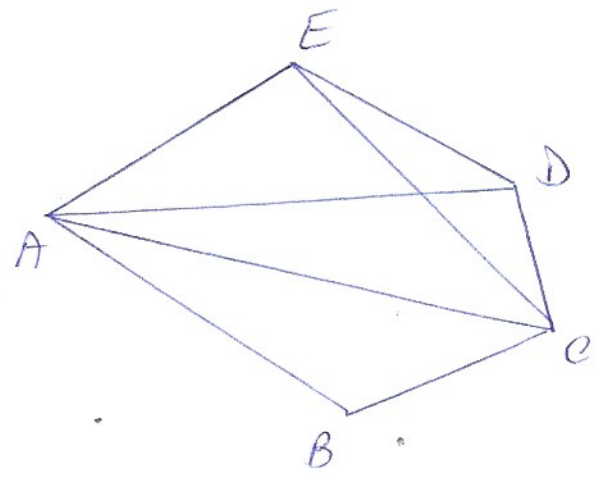


PROBLEME - UNGHIIURI

12/168 cul.

- a) $\angle EDA + \angle ADC = \angle EDC$
- b) $\angle DAB - \angle DAC = \angle CAB$
- c) $\angle DCA = \angle DCE + \angle ECA$
- d) $\angle EAB = \angle EAC + \angle CAB$
- e) $\angle ACB + \angle DCA = \angle DCB$



16/168 cul

$\angle AOB$

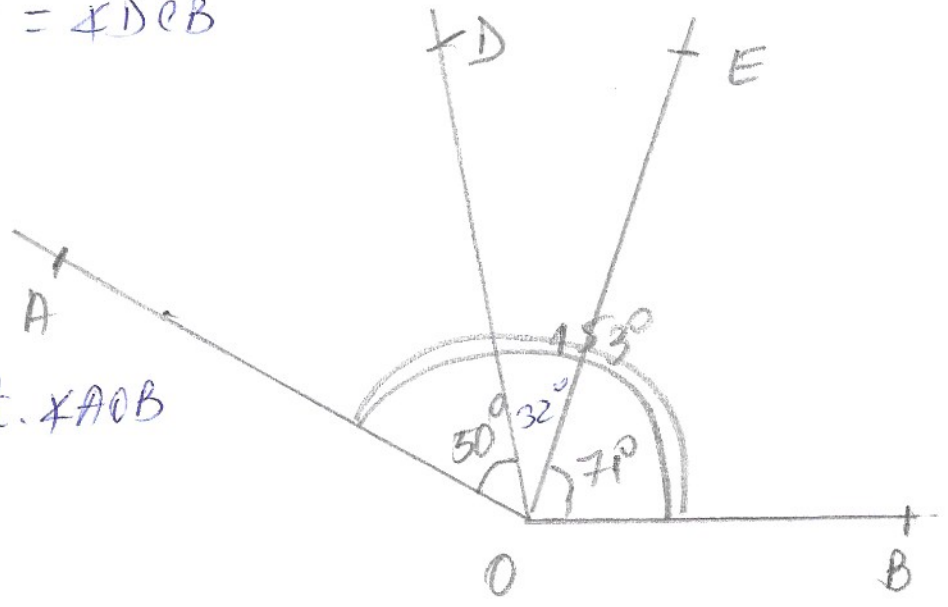
$m(\hat{AOB}) = 153^\circ$

$\angle O D, \angle O E$ în int. $\angle AOB$

$m(\angle AOD) = 50^\circ$

$m(\angle EOB) = 71^\circ$

Cl: $m(\hat{DOE}) = ?$



Dem:

$m(\hat{DOE}) = m(\hat{AOB}) - m(\hat{AOD}) - m(\hat{BOE}) = 153^\circ - 50^\circ - 71^\circ = 32^\circ$

18/168 Ip:

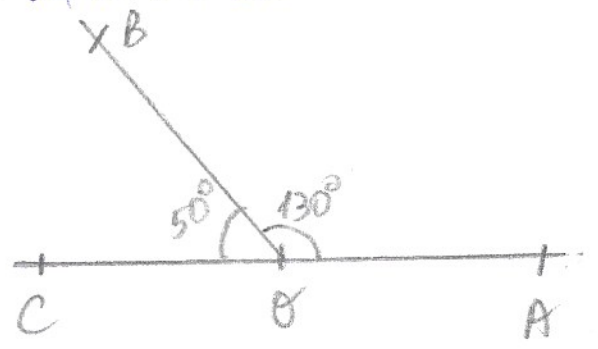
$\angle AOB, \angle BOC$

OB - separă A și C

$m(\hat{AOB}) = 130^\circ$

$m(\hat{BOC}) = 50^\circ$

Cl: A, O, C - coliniare



Dem:

$m(\hat{AOC}) = m(\hat{AOB}) + m(\hat{BOC}) = 130^\circ + 50^\circ = 180^\circ \Rightarrow A, O, C - \text{coliniare}$

17/168 Ip:

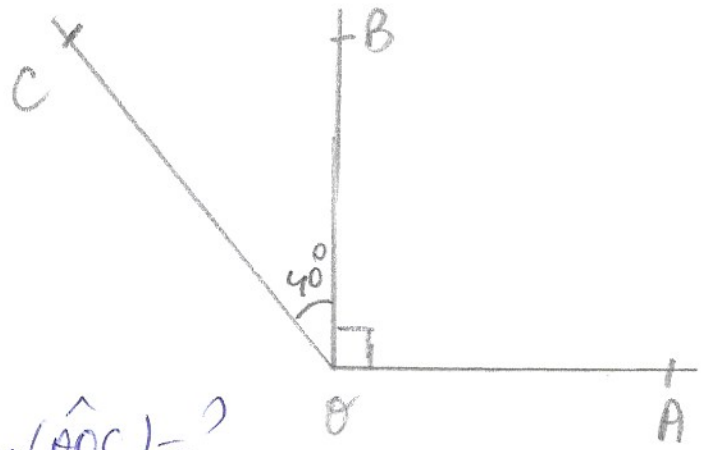
$\angle AOB, \angle BOC$

$$m(\widehat{AOB}) = 90^\circ$$

$$m(\widehat{BOC}) = 40^\circ$$

a) A și C de o parte

și de alta a dreptei OB. $m(\widehat{AOC}) = ?$

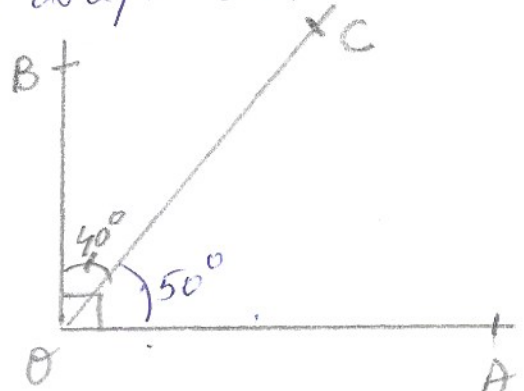


Dem:

$$m(\widehat{AOC}) = m(\widehat{AOB}) + m(\widehat{BOC}) = 90^\circ + 40^\circ = 130^\circ$$

b) A și C de aceeași parte a dreptei OB.

$$\begin{aligned} m(\widehat{AOC}) &= m(\widehat{AOB}) - m(\widehat{BOC}) = \\ &= 90^\circ - 40^\circ = 50^\circ \end{aligned}$$



19/168 Ip:

$B \in (AC)$

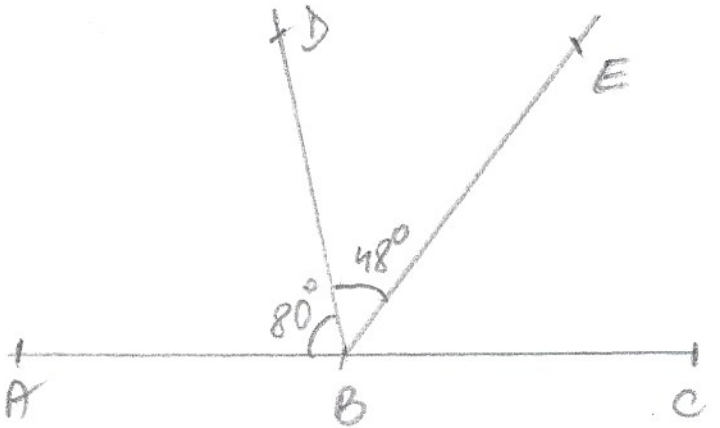
$D \notin AC$

$$m(\widehat{ABD}) = 80^\circ$$

E în semifanul (AC, D)

$[BE \subset \text{Int}(\widehat{DBC})$

$$m(\widehat{EBD}) = 48^\circ$$



Cl: $m(\widehat{EBC}) = ?$

Dem:

Sim A, B, C - coliniare $\Rightarrow m(\widehat{ABC}) = 180^\circ$

$$m(\widehat{EBC}) = m(\widehat{ABC}) - m(\widehat{ABD}) - m(\widehat{DBE}) =$$

$$= 180^\circ - 80^\circ - 48^\circ = 52^\circ.$$

$21/169. x=?$

a) $2x + 14^{\circ} 29' 40'' = 20^{\circ}$

$2x = 20^{\circ} - 14^{\circ} 29' 40''$

$2x = 19^{\circ} 60' - 14^{\circ} 29' 40''$

$2x = 19^{\circ} 59' 60'' - 14^{\circ} 29' 40''$

$2x = 5^{\circ} 30' 20''$

$x = 5^{\circ} 30' 20'' : 2$

$x = 2^{\circ} 45' 10''$

b) $x = 18^{\circ} 14' 57'' = 3 \cdot (11^{\circ} 21' 10'')$

$x - 18^{\circ} 14' 57'' = 33^{\circ} 63' 30''$

$x = 33^{\circ} 63' 30'' + 18^{\circ} 14' 57''$

$x = 51^{\circ} 77' 87''$

$\quad \quad \quad \sqrt{\quad} \wedge$
 $\quad \quad \quad 1' \quad 60'' + 27''$

$x = 51^{\circ} 78' 27''$

$\quad \quad \quad \sqrt{\quad} \wedge$
 $\quad \quad \quad 1' \quad 60' + 18''$

$x = 52^{\circ} 18' 27''$

24/169

Ip:

$\angle OM, \angle ON =$ semidrepte opus

In acelasi semiplan se iau semidreptele $\angle OA, \angle OB, \angle OC, \angle OD$

$A \in \text{Int}(\widehat{MOB})$

$B \in \text{Int}(\widehat{AOC})$

$C \in \text{Int}(\widehat{BOD})$

$D \in \text{Int}(\widehat{NOC})$

$\angle MOA, \angle AOB, \angle BOC, \angle COD, \angle DON =$ nr. nat consecutive

Cl: $m(\widehat{AOB}), m(\widehat{COD}), m(\widehat{MOC}) = ?$

Sol: notam $m(\widehat{MOA}) = x^\circ \Rightarrow$
 $m(\widehat{AOB}) = (x+1)^\circ$
 $m(\widehat{BOC}) = (x+2)^\circ$
 $m(\widehat{COD}) = (x+3)^\circ$
 $m(\widehat{DON}) = (x+4)^\circ$

$x^\circ + (x+1)^\circ + (x+2)^\circ + (x+3)^\circ + (x+4)^\circ = 180^\circ$

$5 \cdot x + 10^\circ = 180^\circ$

$5 \cdot x = 180^\circ - 10^\circ$

$5 \cdot x = 170^\circ$

$x = 170^\circ : 5$

$x = 34^\circ \Rightarrow$

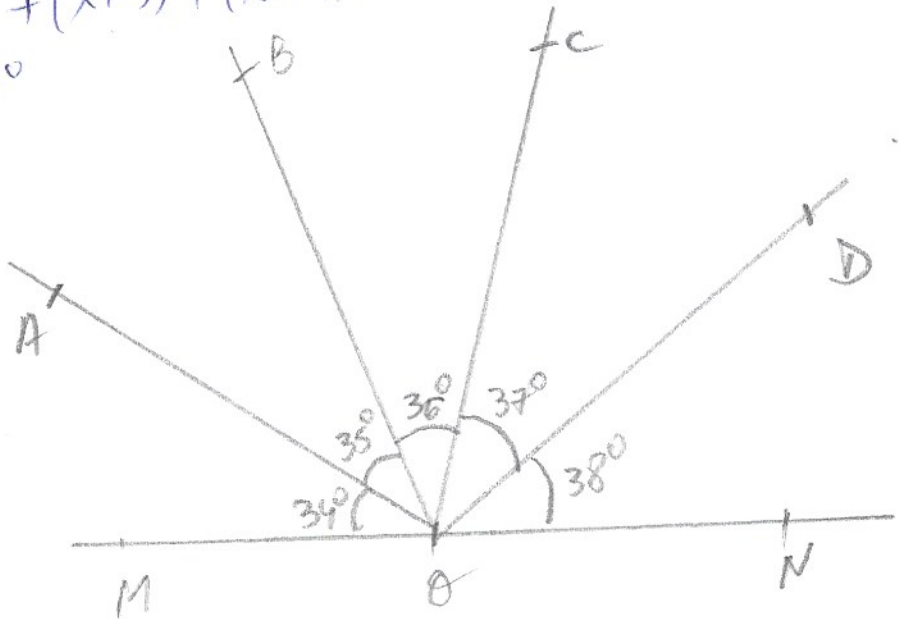
$m(\widehat{MOA}) = 34^\circ$

$m(\widehat{AOB}) = 35^\circ$

$m(\widehat{BOC}) = 36^\circ$

$m(\widehat{COD}) = 37^\circ$

$m(\widehat{DON}) = 38^\circ$



TEMA 5, pâna luni :
culegere pag 171 / 6, 7, 8, 9, 11