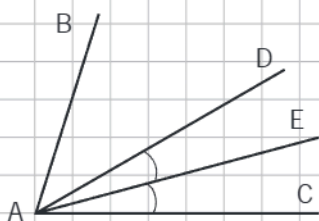


## 4. Leņķu aprēķināšana

**1.** Izsaki leņķi kā citu leņķu summu vai starpību!

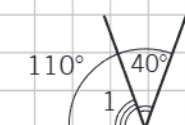


$$\begin{aligned} \sphericalangle BAE &= \dots + \dots \\ \sphericalangle BAD &= \dots - \dots \\ \sphericalangle BAC &= \dots \\ \sphericalangle EAC &= \dots \\ \sphericalangle DAE &= \dots \end{aligned}$$

**2.** Stars, kas novilkts no leņķa C virsotnes, sadala leņķi C divos leņķos. Kādi leņķi veidojas? Aplūko visus gadījumus! Aizpildi tabulu!

Leņķis C	Leņķi C veido
Šaurs	<i>divi šauri leņķi</i>
Taisns	.....
Plats	<i>šaurš un leņķis vai</i>
Izstiepts	.....
Atvērts	.....
Pilns	.....

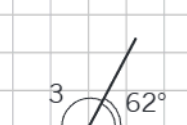
**3.** Aprēķini leņķa lielumu!



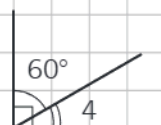
$\sphericalangle 1 = \dots$



$\sphericalangle 2 = \dots$



$\sphericalangle 3 = \dots$



$\sphericalangle 4 = \dots$



$\sphericalangle 5 = \dots$



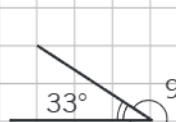
$\sphericalangle 6 = \dots$



$\sphericalangle 7 = \dots$



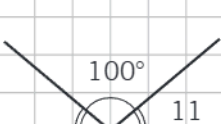
$\sphericalangle 8 = \dots$



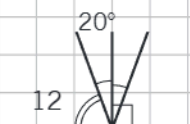
$\sphericalangle 9 = \dots$



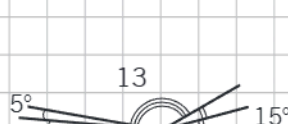
$\sphericalangle 10 = \dots$



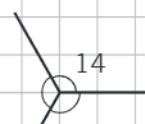
$\sphericalangle 11 = \dots$



$\sphericalangle 12 = \dots$



$\sphericalangle 13 = \dots$

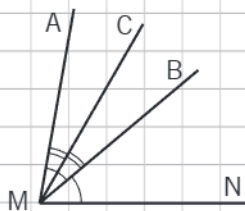


$\sphericalangle 14 = \dots$

**4.** Izpēti uzdevuma risinājumu!

**Dots:**  $\sphericalangle AMN$ ;  
 $MB$  ir  $\sphericalangle AMN$  bisektrise,  
 $MC$  ir  $\sphericalangle AMB$  bisektrise;  
 $\sphericalangle AMN = 80^\circ$ .

**Jāaprēķina:**  $\sphericalangle CMB$ .



**Atrisinājums.**

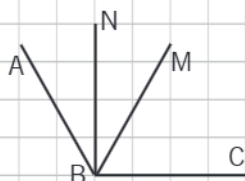
$\sphericalangle AMB = \frac{1}{2} \sphericalangle AMN = 40^\circ$ , jo  $MB$  ir  $\sphericalangle AMN$  bisektrise.

$\sphericalangle CMB = \frac{1}{2} \sphericalangle AMB = 20^\circ$ , jo  $MC$  ir  $\sphericalangle AMB$  bisektrise.

**5.** Atrisini uzdevumu!

**Dots:**  $\sphericalangle ABC = 120^\circ$ ;  
 $BM$  ir  $\sphericalangle ABC$  bisektrise;  
 $\sphericalangle NBC = 90^\circ$ .

**Jāaprēķina:**  $\sphericalangle ABN$ ,  $\sphericalangle NBM$ .

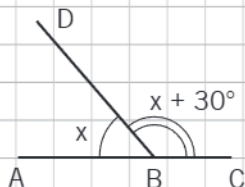


**Atrisinājums.**

**6.** Papildini uzdevuma risinājumu!

**Dots:**  $\sphericalangle ABC = 180^\circ$ ;  
 $\sphericalangle DBA$  ir par  $30^\circ$  mazāks nekā  $\sphericalangle DBC$ .

**Jāaprēķina:**  $\sphericalangle DBA$ ,  $\sphericalangle DBC$ .



**Atrisinājums.**

Apzīmē  $\sphericalangle DBA = x$  un

$\sphericalangle DBC = x + \dots\dots\dots$

$\sphericalangle ABC = \sphericalangle DBA + \sphericalangle DBC = 180^\circ$

$x + x + 30^\circ = 180^\circ$

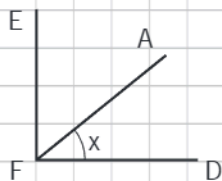
$2x = \dots\dots\dots$   $x = \dots\dots\dots$

$\sphericalangle DBA = \dots\dots\dots$ ,  $\sphericalangle DBC = \dots\dots\dots$ .

**7.** Atrisini uzdevumu!

**Dots:**  $\sphericalangle EFD = 90^\circ$ ;  
 $\sphericalangle EFA$  par  $20^\circ$  lielāks nekā  $\sphericalangle AFD$ .

**Jāaprēķina:**  $\sphericalangle EFA$ ,  $\sphericalangle AFD$ .



**Atrisinājums.**

**8.** Atrisini uzdevumu!

**Dots:**  $\sphericalangle MKN = 180^\circ$ ;  
 $\sphericalangle AKM$  ir 4 reizes mazāks nekā  $\sphericalangle AKN$ .

**Jāaprēķina:**  $\sphericalangle AKN$ ,  $\sphericalangle AKM$ .



**Atrisinājums.**

**9.** No pilnā leņķa virsotnes novilkta divi stari tā, ka viens no leņķiem ir 6 reizes lielāks nekā otrs, bet trešais leņķis ir  $150^\circ$ . Uzzīmē zīmējumu un aprēķini leņķus!