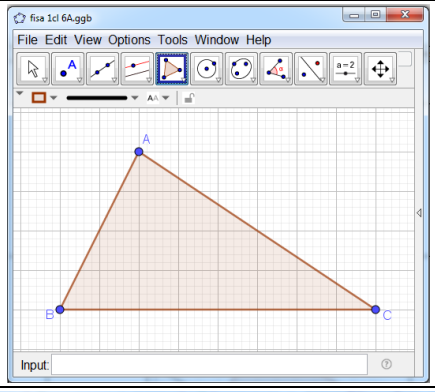
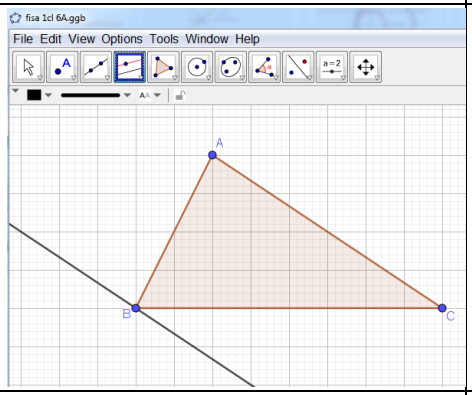
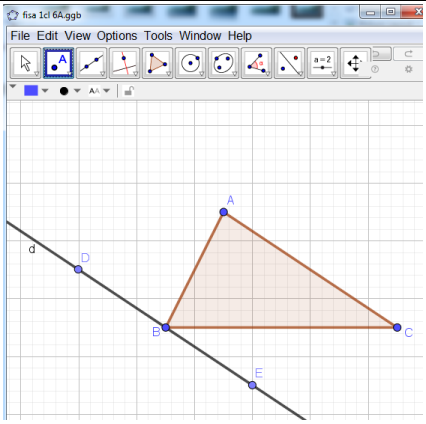
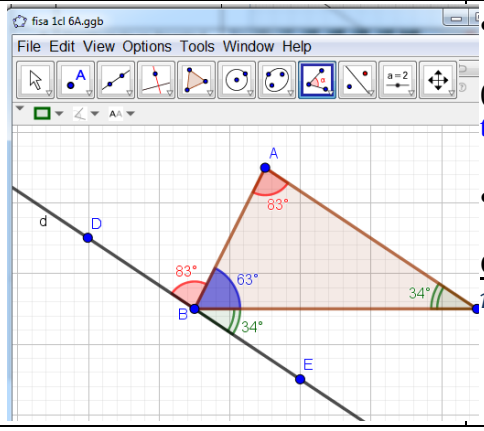
FIȘĂ DE LUCRU: Suma măsurilor unghiurilor unui triunghi

WORKSHEET: The sum of measures of the angles of a triangle

Nr. Crt.	Activitate/Activity	Pictograma/Icon	English text Demonstratii/Demonstrations
1.	Deschide un fișier GeoGebra și salvează-l astfel: nume_prenume_1		Open a file GeoGebra and save as Name_Surname_1
2.	Construiește un triunghi oarecare ABC		Draw a triangle ABC –Option "Polygon" (Icon 5)
3.	• Construiește paralela prin punctul B la dreapta AC. • Numește(redenumește) această dreaptă **d**.		• Draw the parallel line through B to AC –Option "Parallel line" Icon 4 (select point and parallel line). • Name this line **d**
4.	Construiește pe dreapta **d** punctele D și E de o parte și de alta a punctului B **Completează enunțul, pentru a fi corect:** • Punctele A, C se află în același …… față de dreapta d. • Distanța de la punctul A la drepta d este……cu distanța de la punctul ……., la dreapta d. **Concluzie:** Dacă două drepte sunt paralele, distanța dintre ele este ……		Draw on the line d, the points D and E , one side and the other pointB. **Fill in the statement to be correct:** • Points A, C are in the same ..... to line d. • The distance from point A to line d is ..... with the distance from point ....., to line d. **Conclusion:** If two straight lines are parallel, the distance between them is .....
5.	•Construiește unghiurile ABD, EBC, ABC, BAC, ACB, CBA •Marchează unghiurile congruente cu același semn • Build the angles ABD, EBC, ABC, BAC, ACB, CBA • Marks the congruent angles with the same sign		• $(d \parallel AC) \cap AB \Rightarrow$ $\measuredangle$ … … . $\equiv \measuredangle$ … . . … (tip unghiuri/ angles type:……...) • $(d \parallel AC) \cap CB \Rightarrow$ $\measuredangle$ …… $\equiv \measuredangle$ … … **Concluzie/ Conclusion:**: $\boldsymbol{m(\measuredangle ABC) + m(\measuredangle ACB) + m(\measuredangle BAC) = \ldots\ldots}$

Use the drawing to deduce what is the sum of the angles of a triangle!

∡BAC , ∡ABD sunt/are:...

∡ACB, ∡CBE sunt/are:...

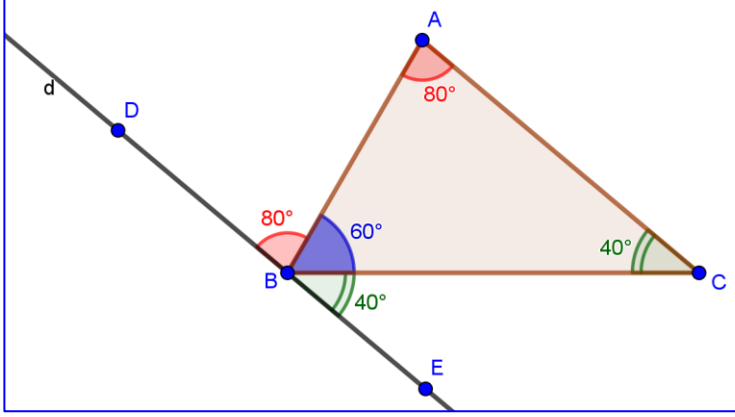
Verifică răspunsul! Check the answer!

Verifică răspunsul!/Check the answer!

Suma măsurilor unghiurilor unui triunghi

Sum of measures of the angles of a triangle

Verifică!/Check the answer!



Problem

ΔABC: m(∡BAC)=56°<90°, m(∡ABC)=60°<90°, m(∡ACB)<90°

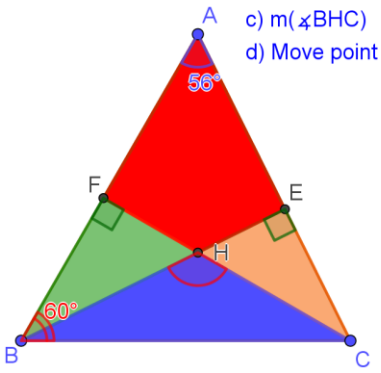
Find:

a) m(∡ACB)

b) m(∡ACF), m(∡ABE),

c) m(∡BHC)

d) Move point A to change the angles. Find the m(∡BHC), depending on the m(∡BAC)=α.



Solution a)

Solution b)

Solution c)