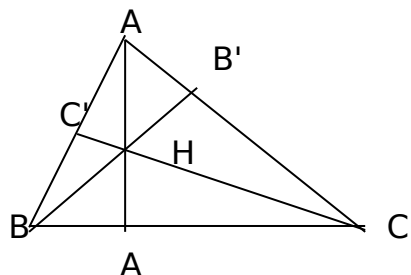


TEOREME IMPORTANTE – FORMULE

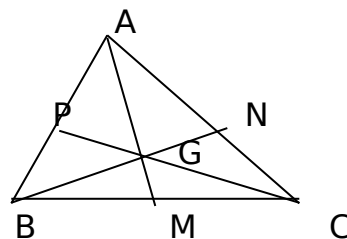
INĂLȚIMEA



H, ortocentru

$$AA' \cdot BC = BB' \cdot AC = CC' \cdot AB$$

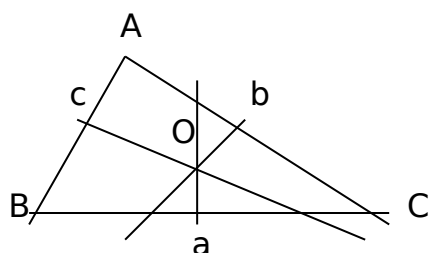
MEDIANA



G, centrul de greutate

$$AG = \frac{2}{3} AM; \quad GM = \frac{1}{3} AM$$

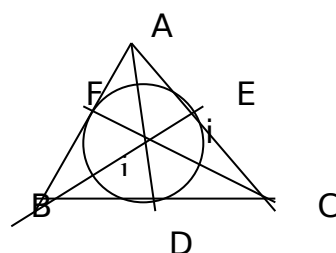
MEDIATOARE



O, centrul cercului circumscris
încris

$$R = \frac{a \cdot b \cdot c}{4A_{\nabla}}$$

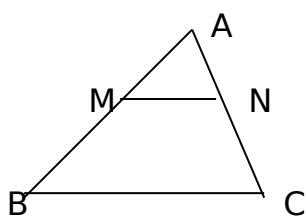
BISECTOARE



I, centrul cercului

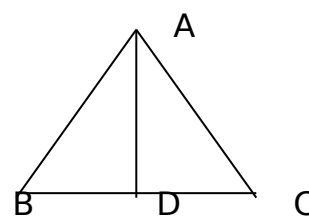
$$r = \frac{A_{\nabla}}{p}; \quad p = \frac{a+b+c}{2}$$

LINIA MIJLOCIE



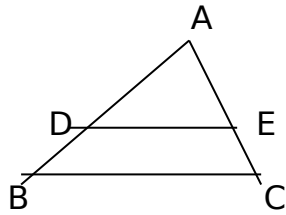
$$MN \parallel BC; \quad MN = \frac{BC}{2}$$

TEOREMA BISECTOARE



$$AD, \text{ bisectoare} \quad \frac{AB}{AC} = \frac{BD}{DC}$$

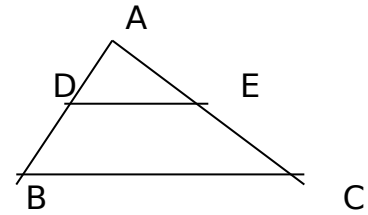
TEOREMA LUI THALES
ASEMĂNĂRII



$$DE \parallel BC$$

$$\frac{AD}{DB} = \frac{AE}{EC}; \frac{AD}{AB} = \frac{AE}{AC}; \frac{DB}{AB} = \frac{EC}{AC}$$

TEOREMA FUNDAMENTALĂ A

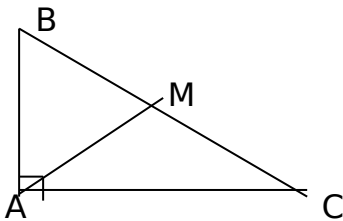


$$\nabla ADE \sim \nabla ABC$$

$$\frac{AD}{AB} = \frac{AE}{AC} = \frac{DE}{BC}$$

TEOREMA MEDIANEI ÎN TRUNGHIL
30°

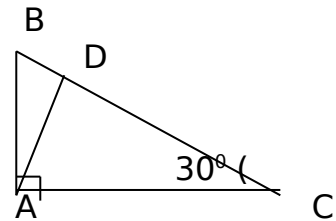
DREPTUNGHIIC



$m(\sphericalangle A) = 90^\circ$; AM mediană
 $m(\sphericalangle C) = 30^\circ$

$$AM = \frac{BC}{2}$$

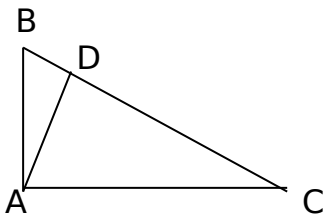
TEOREMA UNGHIULUI DE



$m(\sphericalangle A) = 90^\circ$;

$$AB = \frac{BC}{2}; AD = \frac{1}{2} AC$$

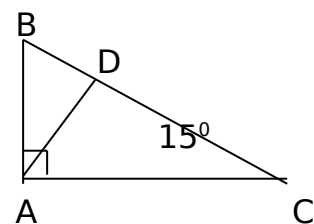
TEOREMA UNGHIULUI DE 15°
PITAGORA



$m(\sphericalangle C) = 15^\circ$; $m(\sphericalangle A) = 90^\circ$

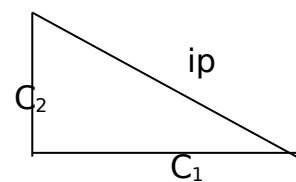
$$AD = \frac{1}{2} BC$$

TEOREMA CATETEI



C

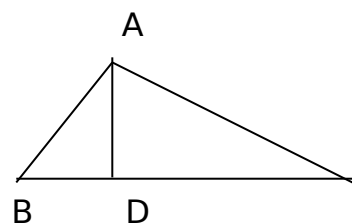
TEOREMA LUI



$$ip^2 = C_1^2 + C_2^2$$

$$C_1^2 = ip^2 - C_2^2$$

TEOREMA ÎNĂLTIMII



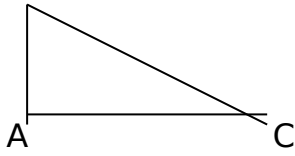
$$AB^2 = BC \cdot BD$$

$$AC^2 = BC \cdot DC$$

$$AD^2 = BD \cdot DC$$

B
DREPTUNGHIIC

RAPOARTE CONSTANTE ÎN TRIUNGHIUL



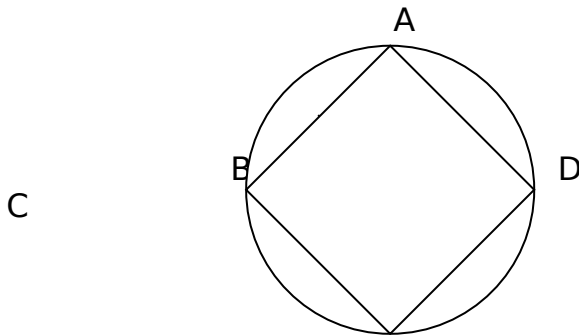
60°	$\sin. C = \frac{cat.op.}{ipot.}$
90°	
$\frac{\sqrt{3}}{2}$	$\cos. C = \frac{cat.alat.}{ipot.}$
1	
$\frac{1}{2}$	$tg. C = \frac{cat.op.}{cat.alat.}$
0	
$\sqrt{3}$	$ctg. C = \frac{cat.alat.}{cat.op.}$
-	

0

		0	30°	45°	
	sin. C	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	
	cos. C	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	
	tg. C		0	$\frac{\sqrt{3}}{3}$	1
	ctg. C		$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$

POLIGOANE REGULATE

PĂTRATUL INSCRIS ÎN CERC
ÎN CERC



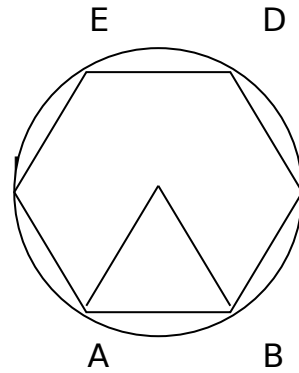
$$l_4 = R\sqrt{2}$$

$$a_4 = \frac{R\sqrt{2}}{2}$$

$$A_4 = 2R^2$$

$$\frac{2R\sqrt{3}}{2}$$

HEXAGONUL INSCRIS

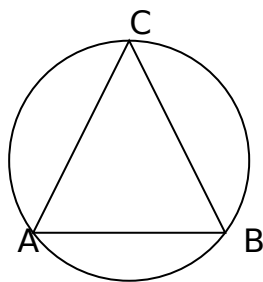


$$l_6 = R$$

$$a_6 = \frac{R\sqrt{3}}{2}$$

$$A_6 = 6 \cdot A_{\Delta OAB} =$$

TRIUNGHIU ECHILATERAL ÎNSCRIS ÎN CERC

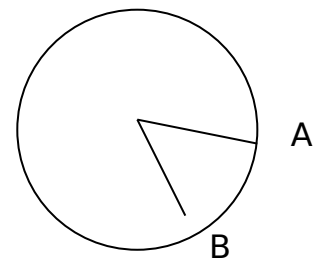


$$OC = \frac{2}{3} CM$$

$$l_3 = R\sqrt{3} \Rightarrow R = \frac{l\sqrt{3}}{3}$$

$$a_3 = \frac{R}{2} = \frac{1}{3} CM$$

CERCUL



$$A_{\text{cerc}} = \pi R^2$$

$$L_{\text{cerc}} = 2\pi R$$

$$A_{\text{sect.}} = \frac{\pi R^2 n^\circ}{360^\circ}$$

$$A_3 = \frac{l^2 \sqrt{3}}{4} = \frac{3R^2 \sqrt{3}}{4}$$

$$L_{\text{arc.}} = \frac{\pi R n}{180}$$