Marca Regist. "DE LUXE" Ind. Brasileira - Proc. Pat. 29.839

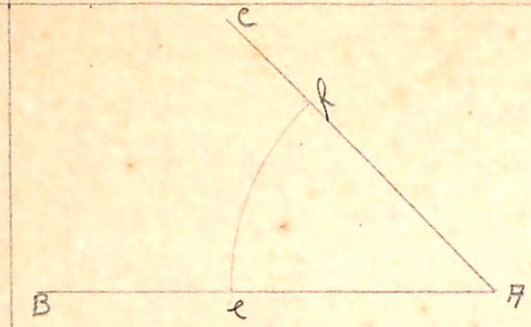
8,5

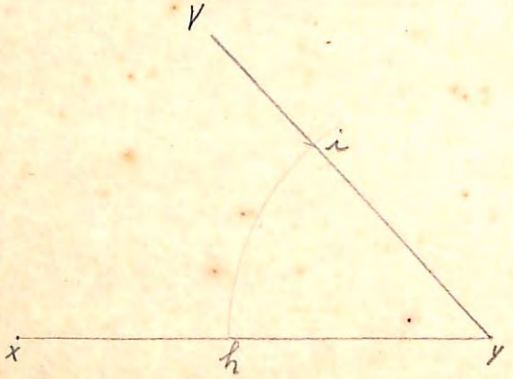
Nelson Young nº 38

III Serie

No. 7 — DESENHO

COLORIDO Patente 39.445 - Direitos Aut. Reserv. todas côres





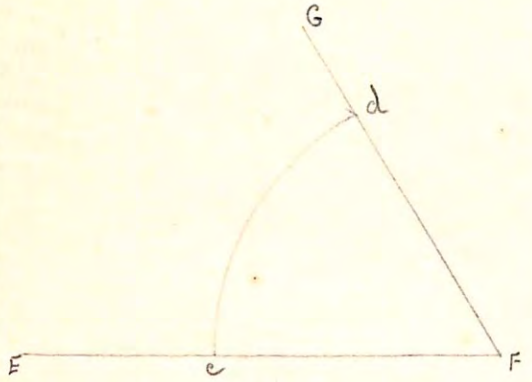
Construir um ângulo igual a outro dado, utilisando-se o compasso.

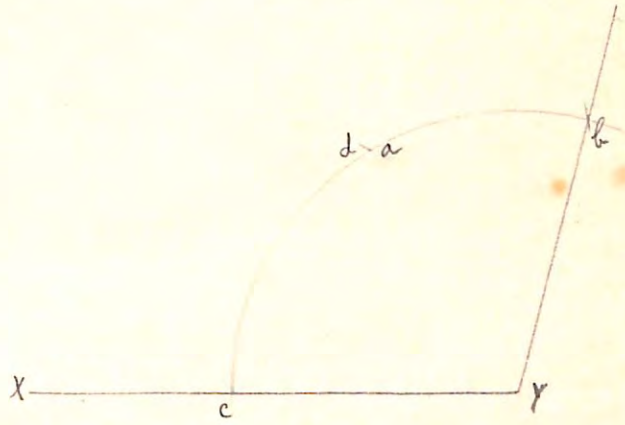
Traçam-se a reta XY. Com uma abertura arbitraria do compasso, faz-se centro em A e tracam-se o arco e, f que corta B, A e AC, com a mesma abertura faz-se centro em y e traçam-se o arco h, i, toma a distância da corda e, f e transporta-se para h, i. Unindo-se y a i resolve-se o problema

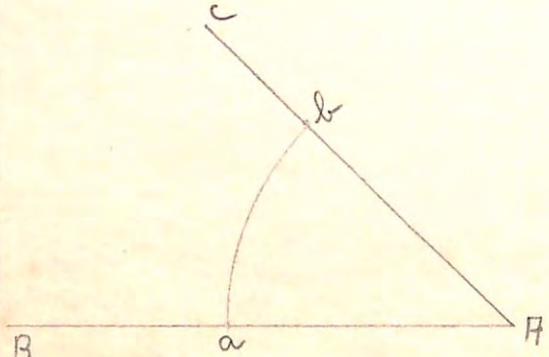
8-3-60

FIG 1

FIG 1







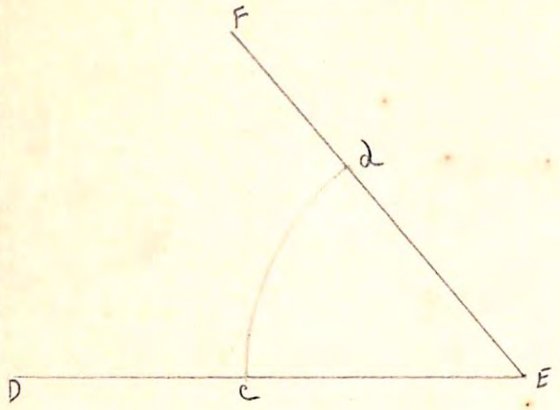
Construir um ângulo igual a soma de dois ângulos dado, utilisando-se o compasso.

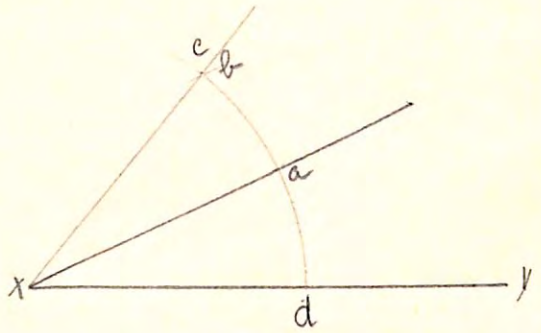
São dados os ângulos B,A,C e E,F,,G.

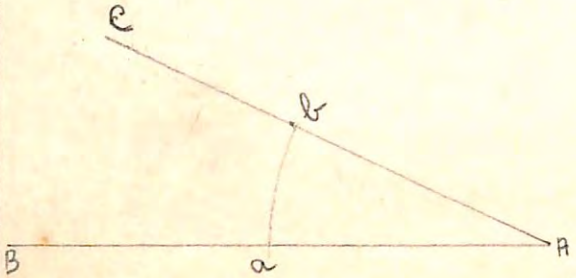
Traça-se a reta XY. Com uma abertura qualquer do compasso, faz-se centro em A e F tracando-se os arcos a,b e c,d. com a mesma abertura faz-se centro em X e traça-se o arco c,b. Tomando-se a abertura c,d e a,b, marque-se em c,b, unindo-se Y a b resolve-se o problema.

FIG 2.

8-3-60





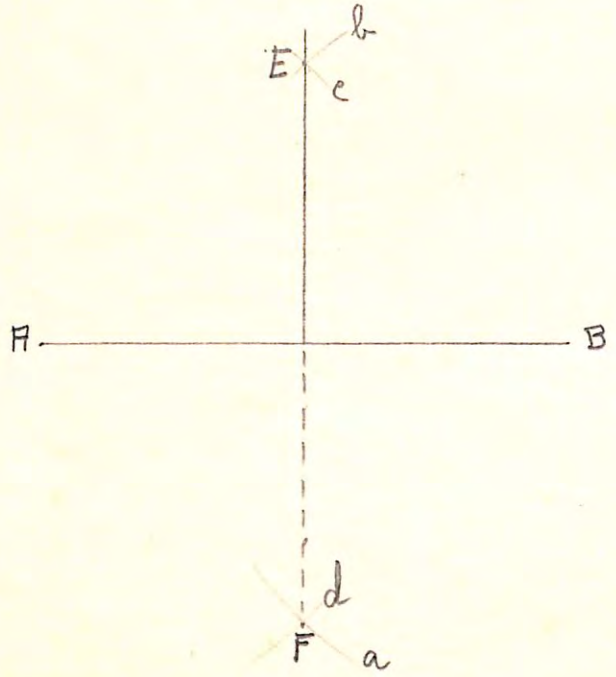


Construir um ângulo igual a diferença de dois ângulos dados.

1) Trace-se um segmento x y
2) De um ponto qualquer O sôbre êste segmento, trace-se um arco com raio arbitrário
3) A partir dos vértices A e E dos ângulos dados, tracem-se arcos com o mesmo raio
4) A partir de c, transporte-se a corda c, d.
5) A partir de c marque-se a, b igual a corda do outro ângulo dado.
6) Ligue-se a a b que resolve o problema

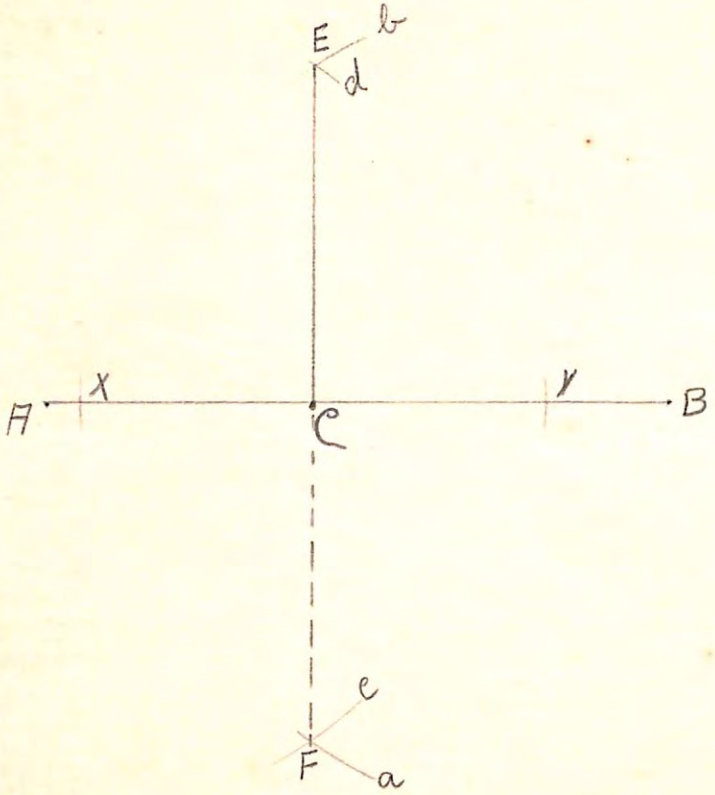
16-3-60

Fig 3



Traçar uma perpendicular ao meio de uma reta.
É dada a reta A, B, com o compasso fazendo o centro em A e depois em B, com um raio maior do que a metade de A, B, traça-se os arcos a, b, c, e d que se cortam em E e F que resolvem o problema FIG 4

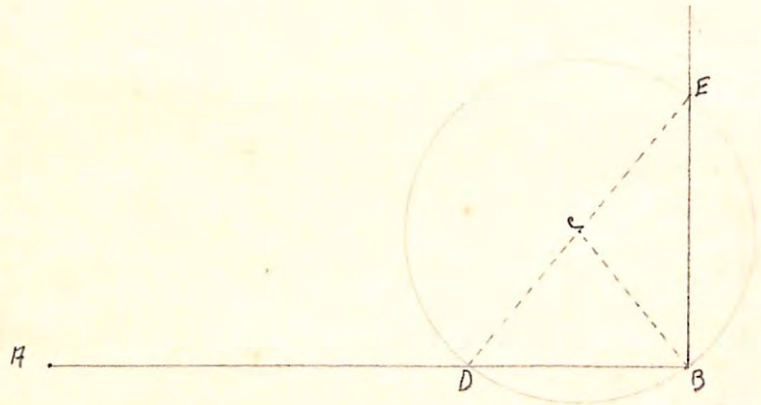
16-3-60



Levantar uma perpendicular de um ponto qualquer (C) sobre o segmento AB. Fazendo-se centro em C marque-se XY. Com um raio maior do que XC traça-se os arcos a, b, c e d, que se cortam em E e F. Traça-se a reta E.C que resolve o problema.

16-3-60

FIG 5



LEVANTAR UMA PERPENDICULAR AO EXTREMO DE UM SEGMENTO AB.

É Dada a reta AB, marque-se um ponto qualquer C. Centra-se o Compasso e Com o raio C B traça-se a circunferencia que cortará a reta AB em D, traçando-se o diametro D C E determina-se O ponto E. Ligando-se E a B resolve o problema.

PROBLEMA Nº 6 18-3-60

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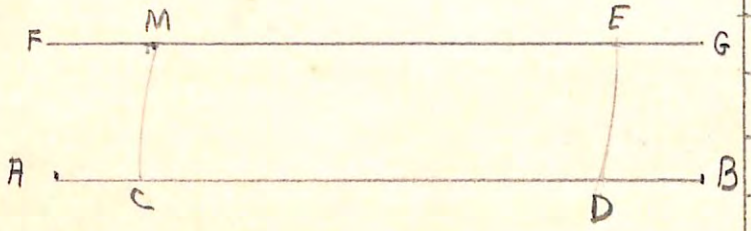
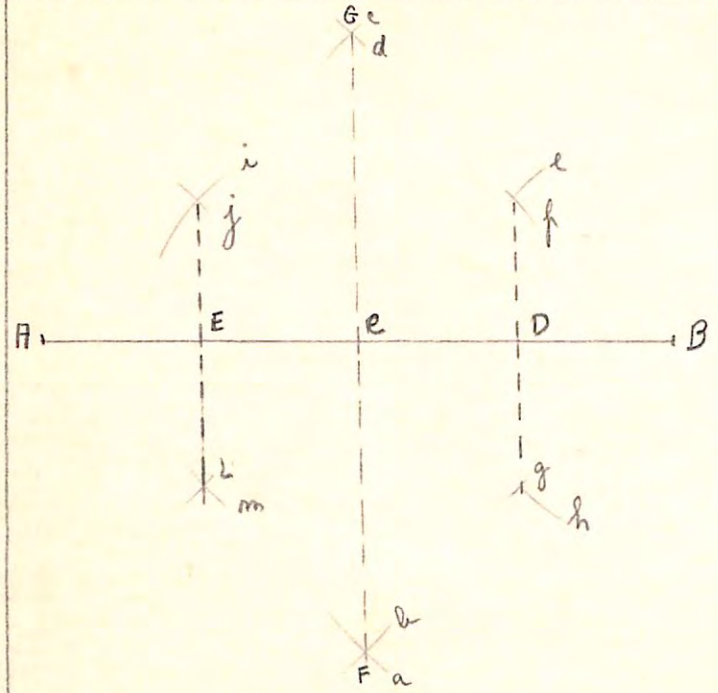


Por um ponto dado traçar uma paralela ao segmento A.B.

Com a ponta de compasso em D traça-se o arco do ponto M a C, com a mesma abertura faz-se centro em M e traça o arco E D. Com uma abertura igual a M C marque-se E D. A reta FG resolve o problema

PROBLEMA Nº 7

18-3-60



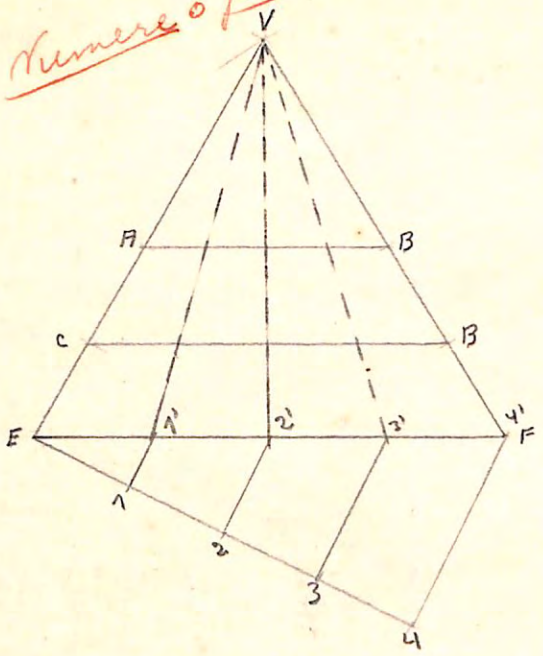
Dividir um segmento em um número de partes iguais. É dado o seg AB. Centro em A e traça-se os arcos b, d centro em B e traça-se os arcos a c que cortam-se em F e G, baixando a perpendicular GF resolve o problema.

PROBLEMA. Nº 8

18-3-60

Numero o problema!

Oscricas?

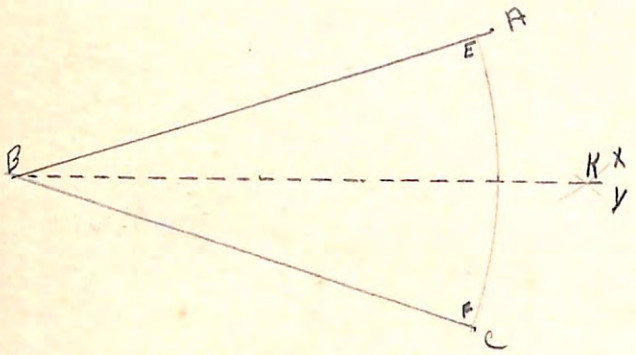


A ——— 3 cm ——— B

C ——— 4,5 cm ——— D

E ——— 6 cm ——— F

PROBLEMA NO. 9



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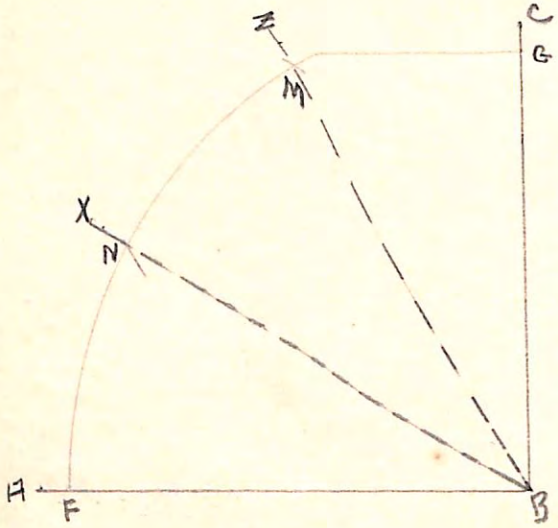

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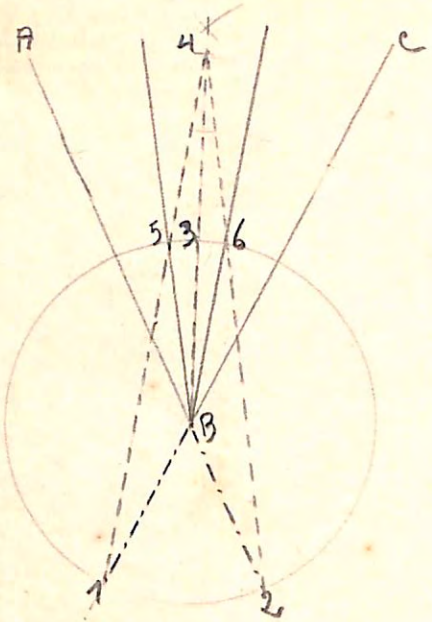

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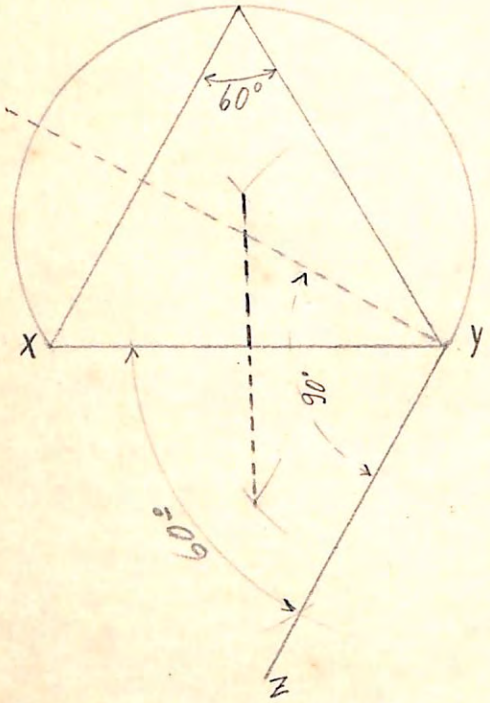

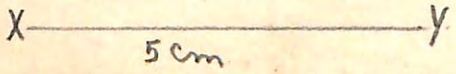

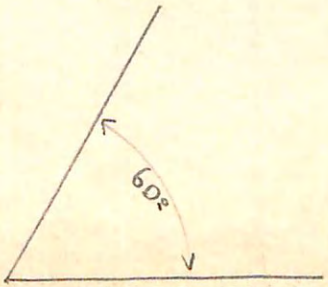

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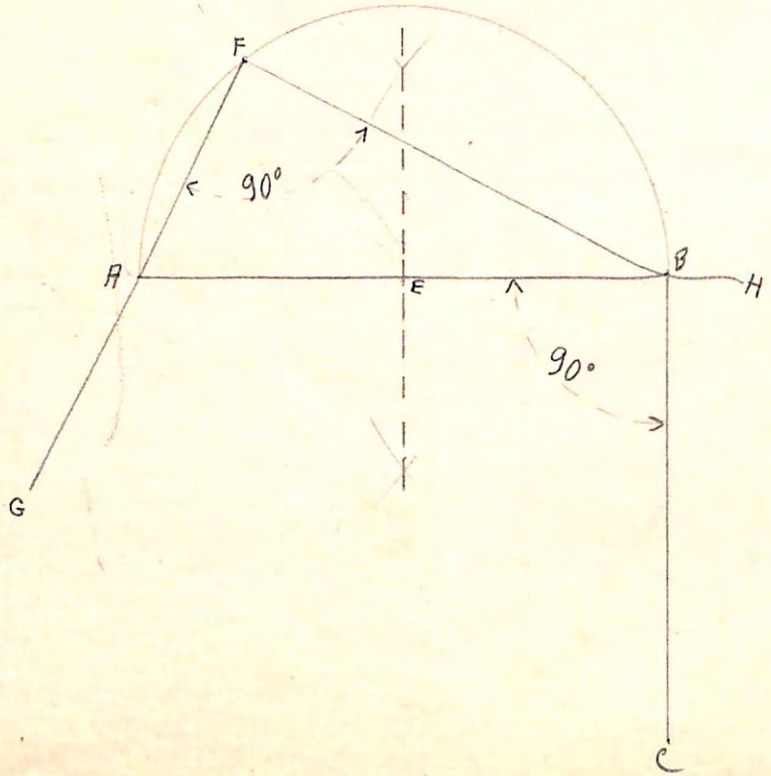


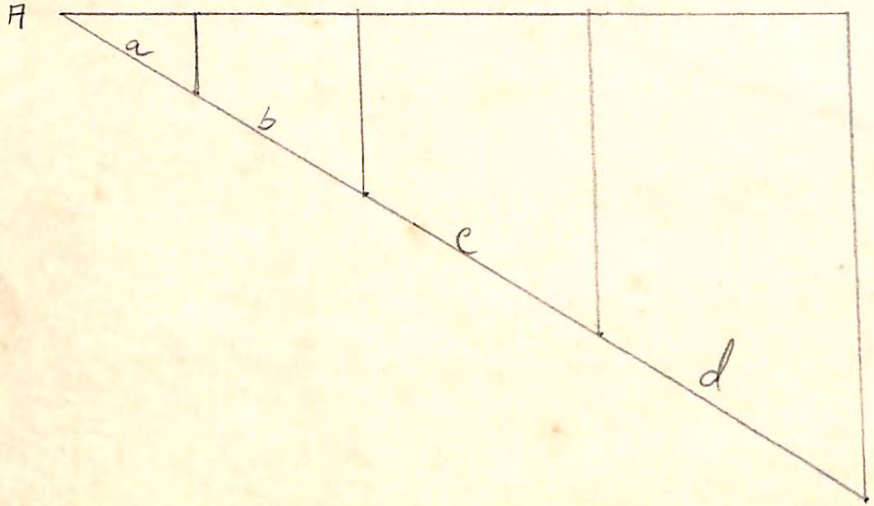
PROBLEMA Nº 14

a 2 cm

b 2,5 cm

c 1,5 cm

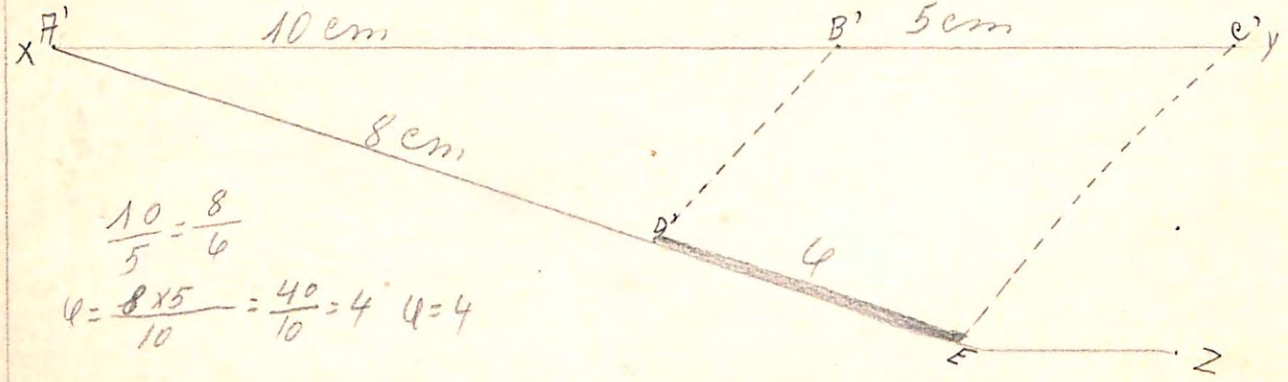
d 4 cm



PROBLEMA Nº 15

Dividir um segmento dado em partes proporcionais

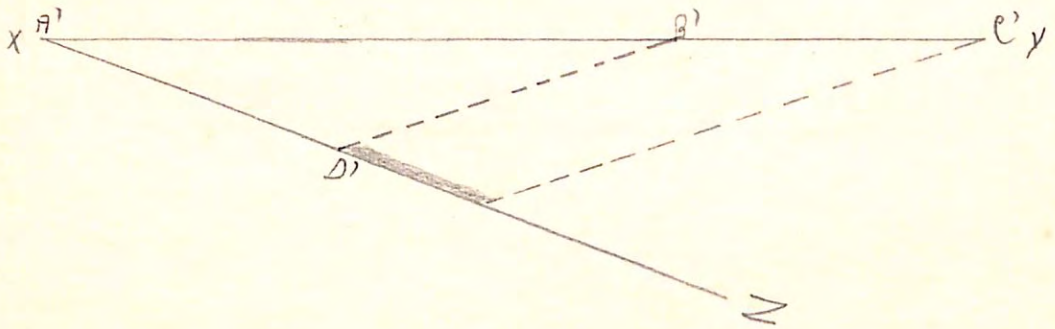
4ª proporcional



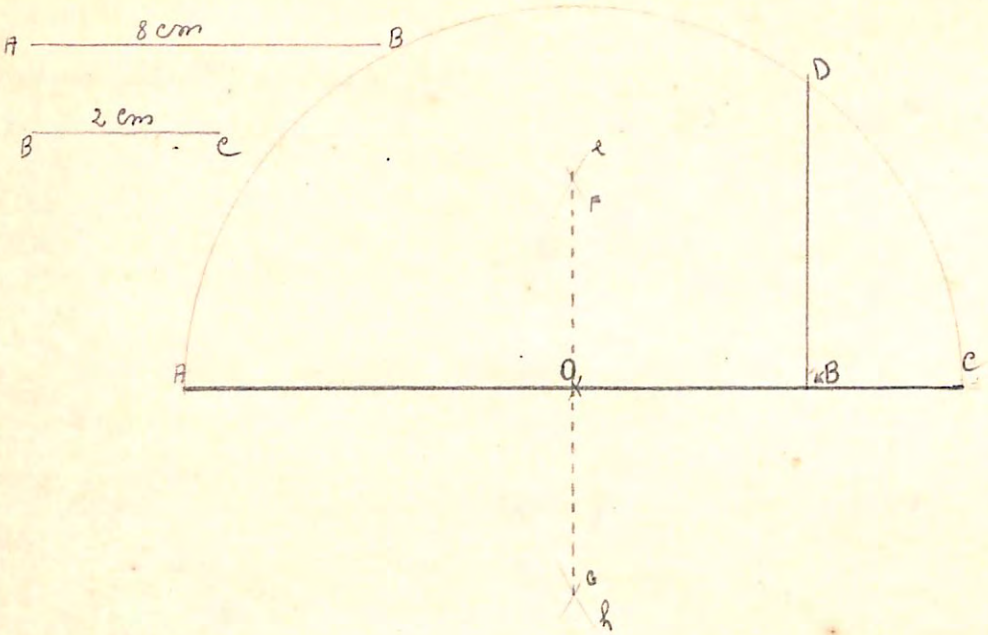
$\frac{10}{5} = \frac{8}{4}$

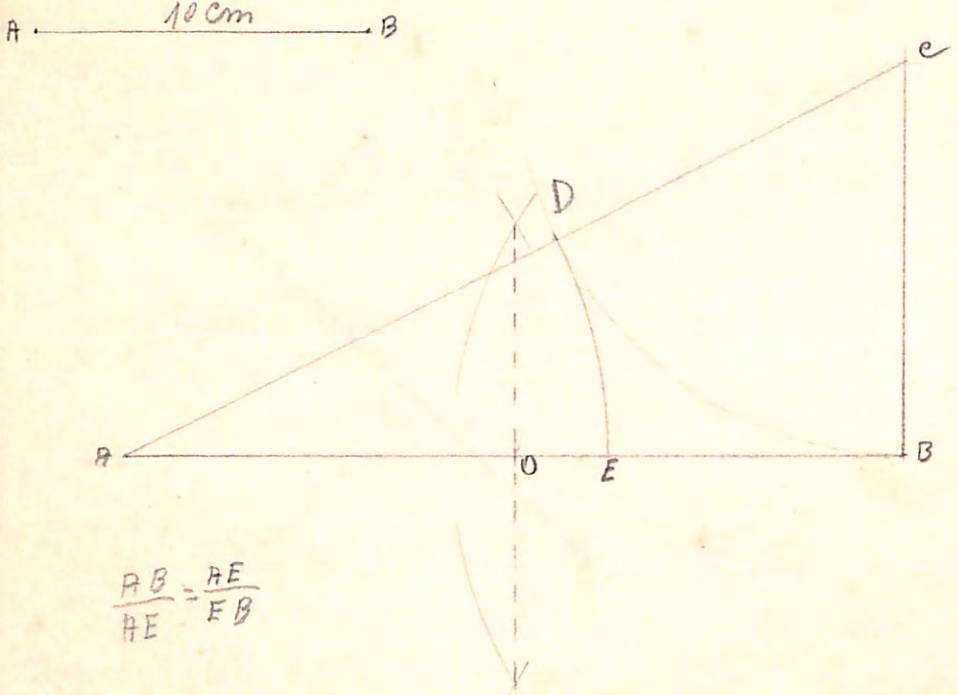
$4 = \frac{8 \times 5}{10} = \frac{40}{10} = 4 \quad 4 = 4$

$\frac{A'B'}{B'C'} = \frac{BC}{D}$ 3ª proporcional

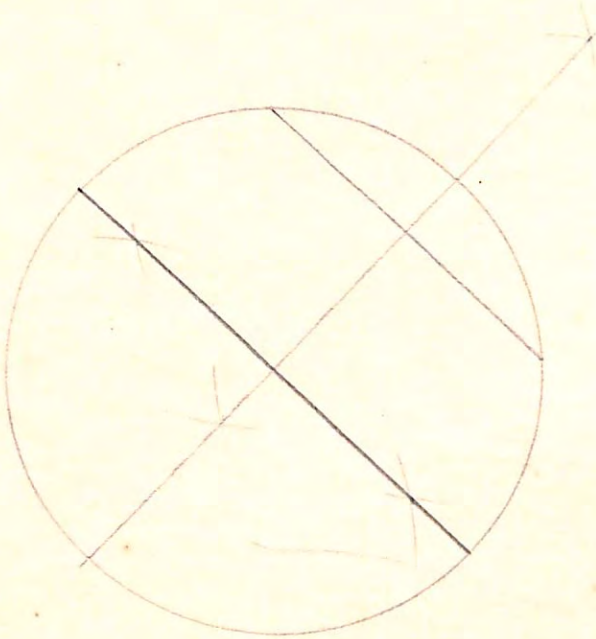


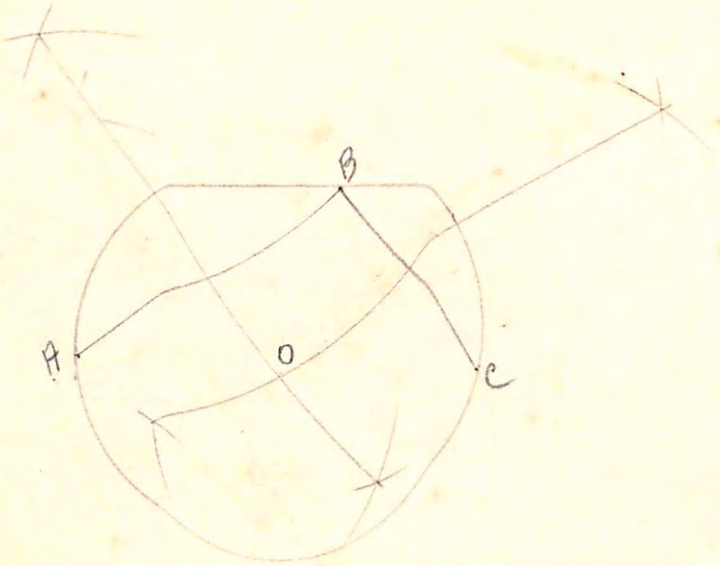
TRAÇAR A MEDIA PROPORCIONAL a dois SEGMENTOS DADOS.

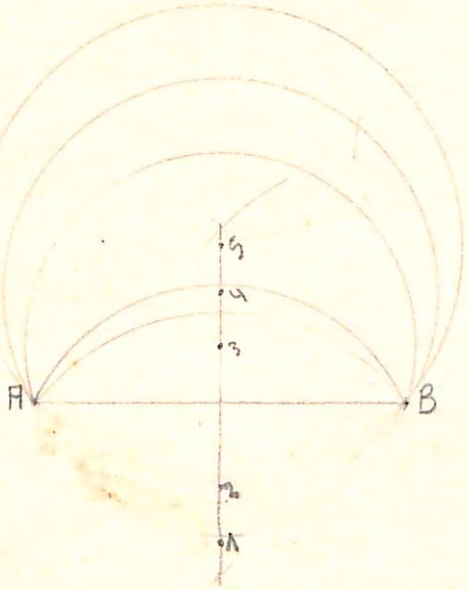


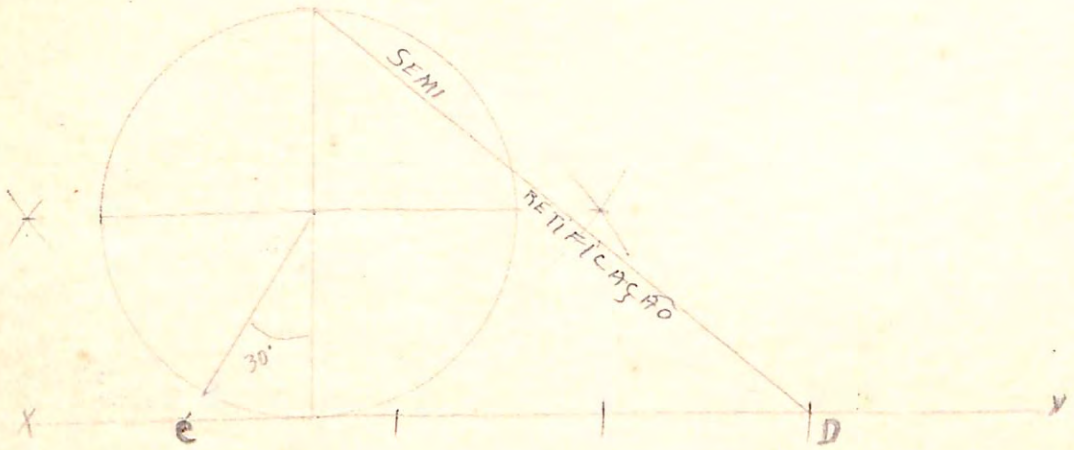


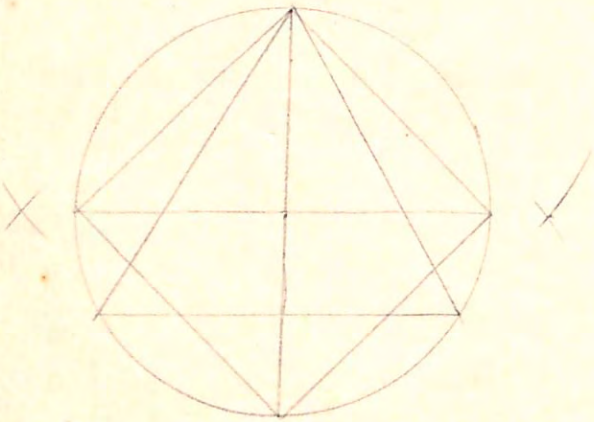
$$\frac{AB}{AE} = \frac{AE}{EB}$$

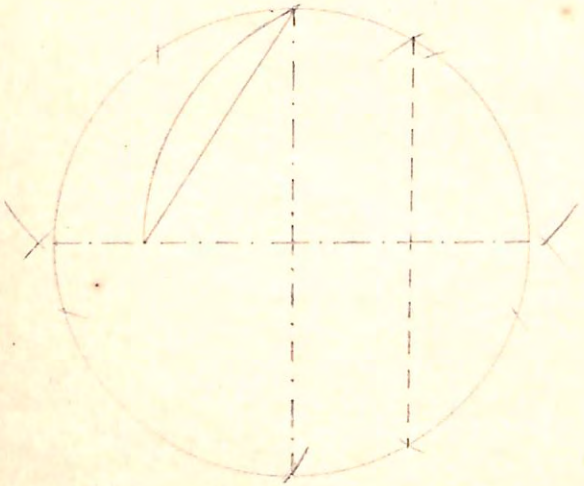


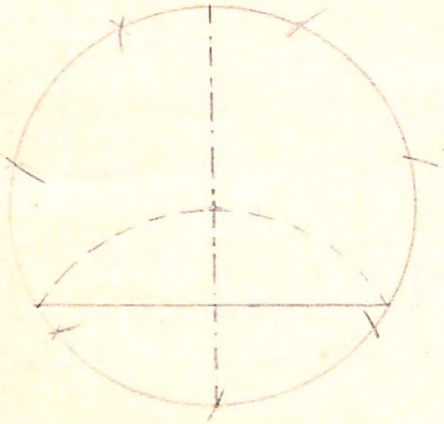

B
A
O
C

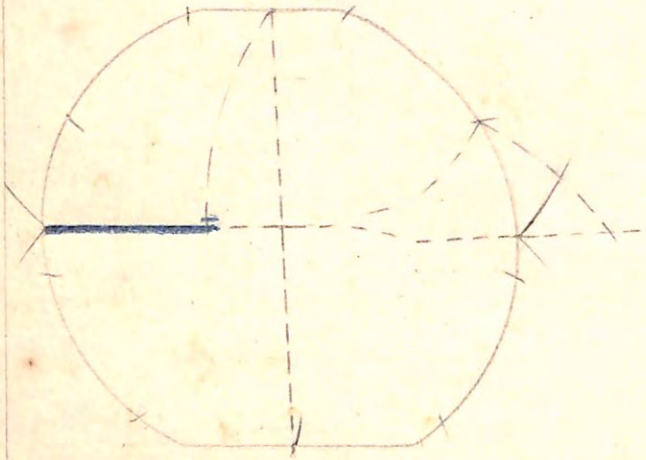

A
B

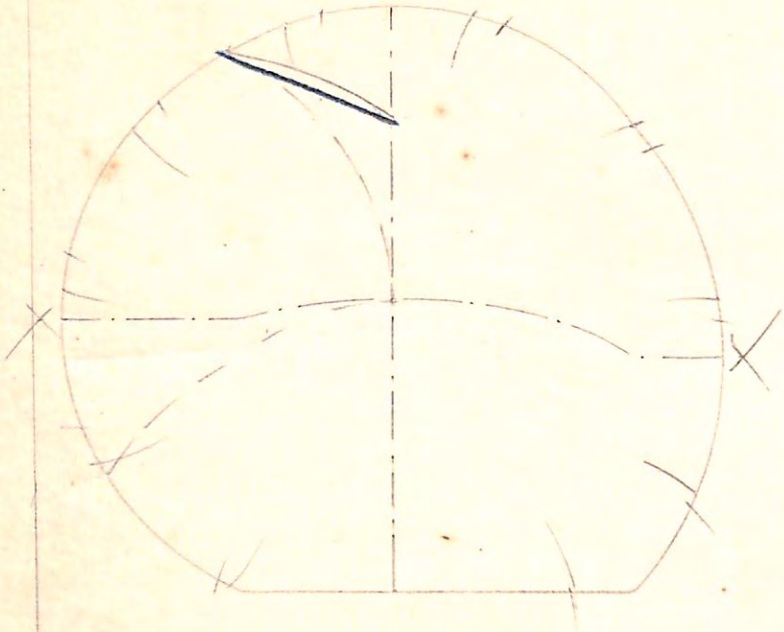

SEMI
RETIFICAÇÃO
30°
X
C
D
Y

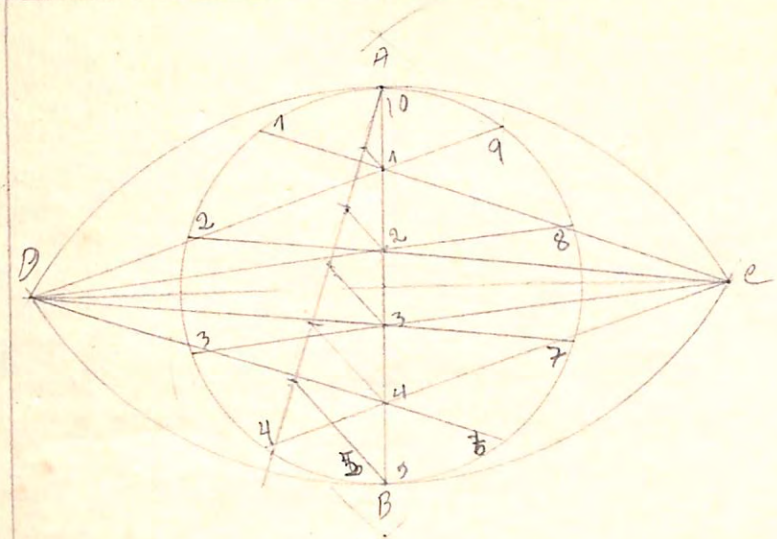

X
Y










A
B
D
E
10
1
9
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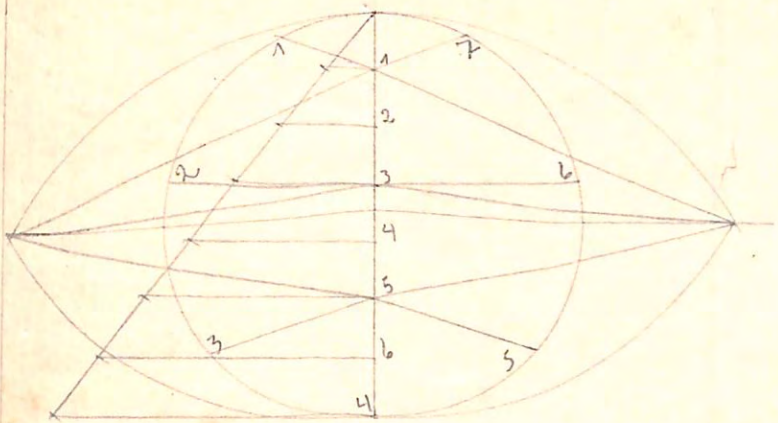
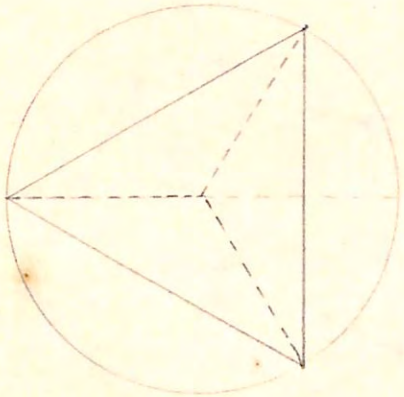
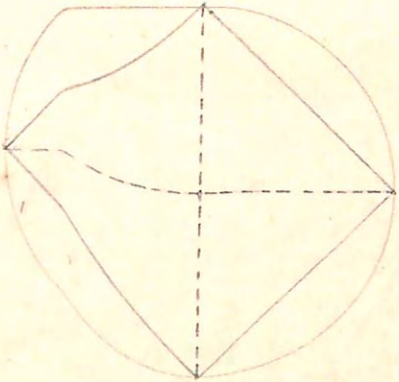
6

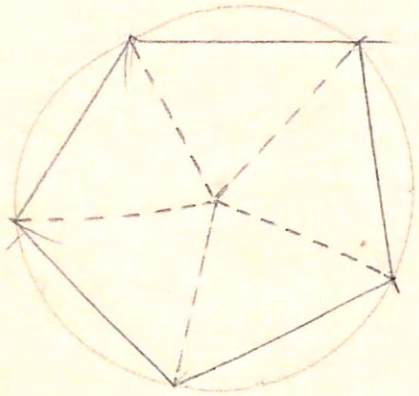
7, 9, 11 Sc.

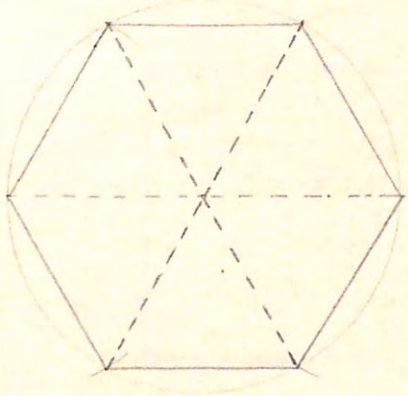


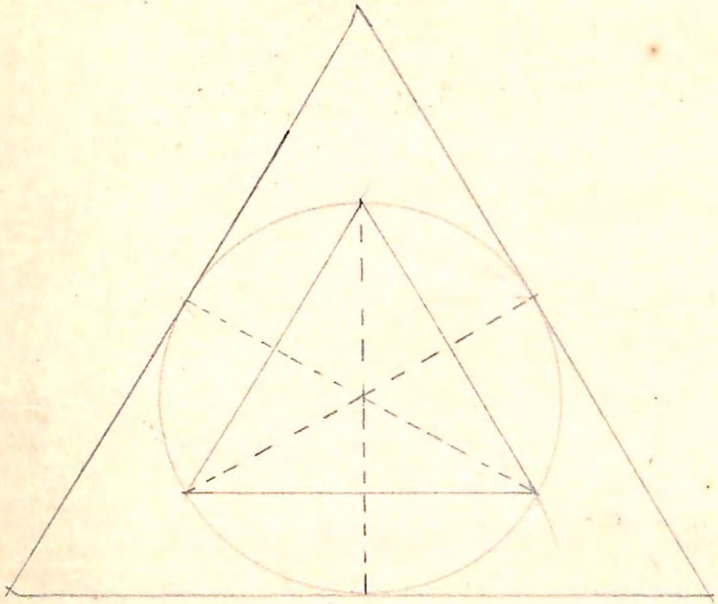


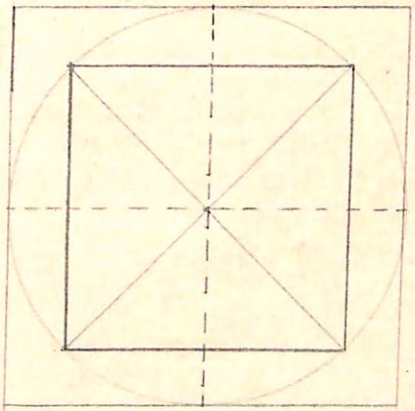


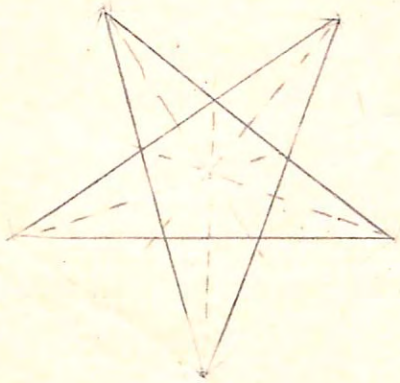
Polígonos Inscritos

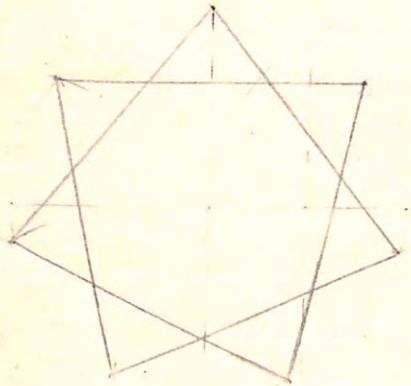


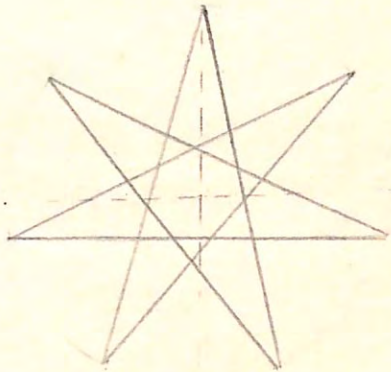


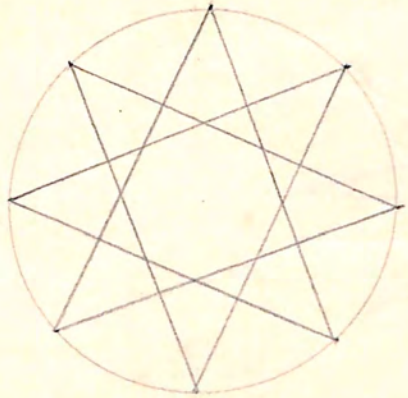


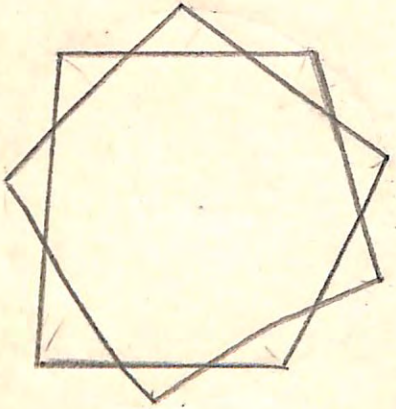


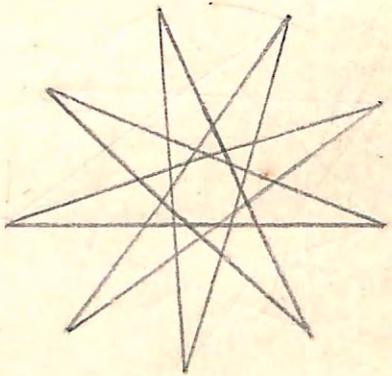




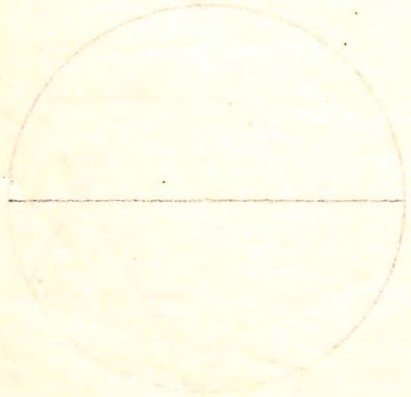


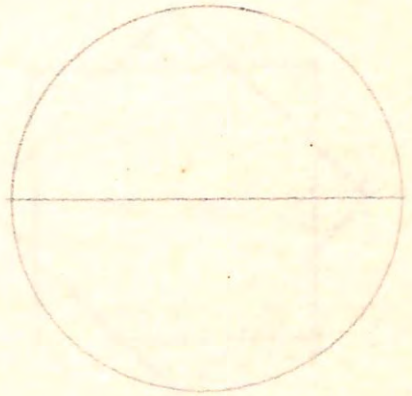


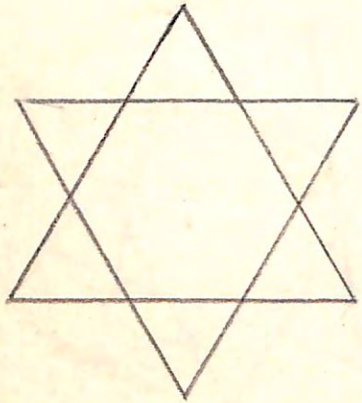


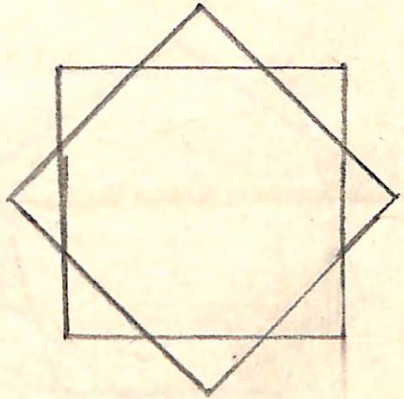


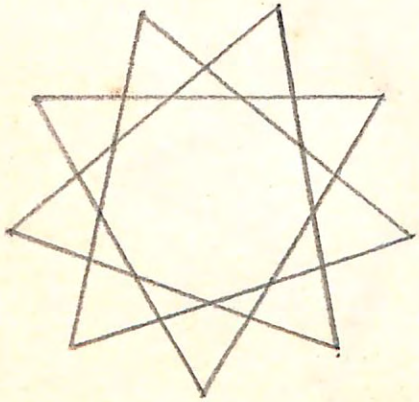
POLÍGONO ESTRELADO Com 9 Pontas

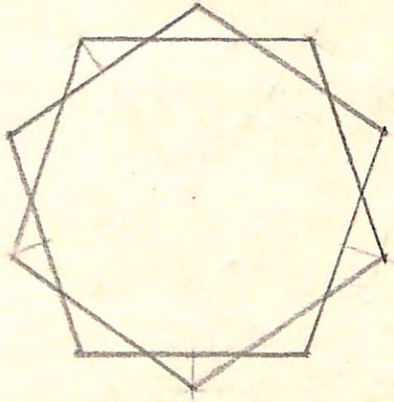


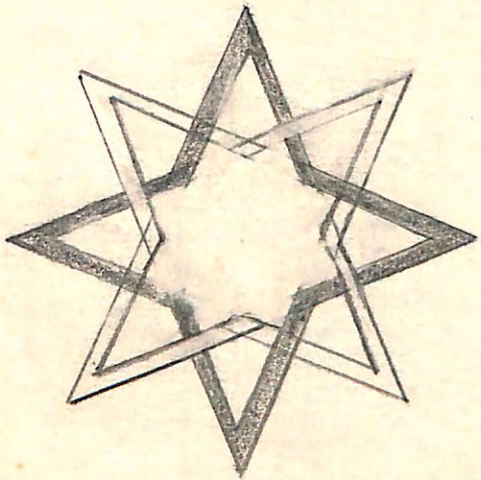


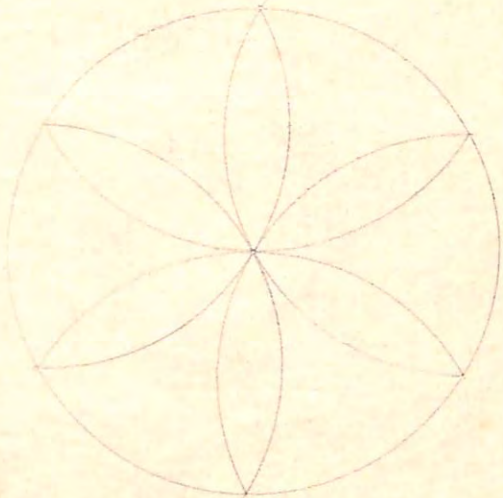


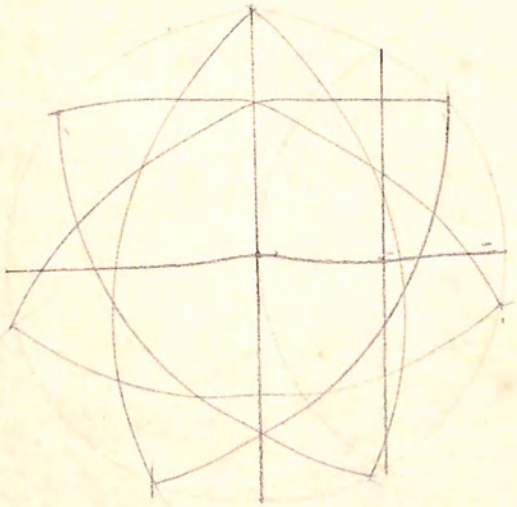


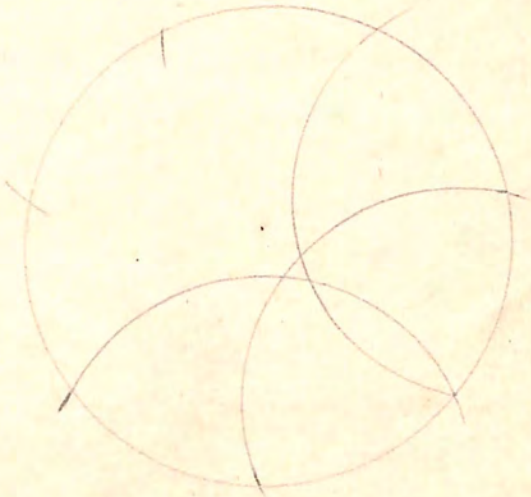


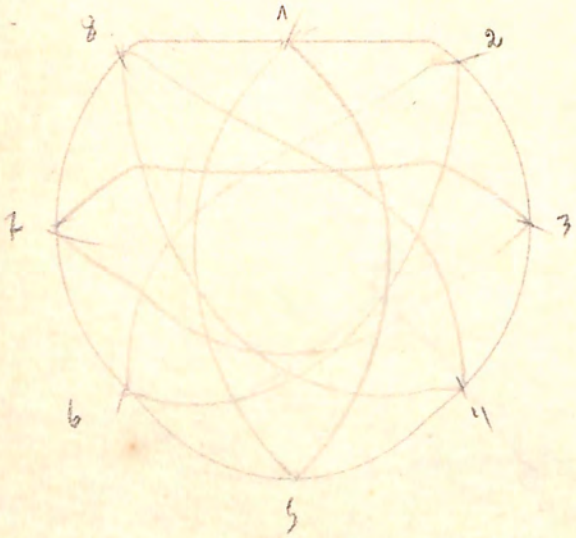










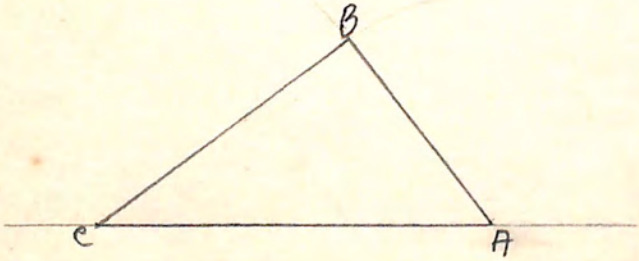

8
1
2
7
3
6
4
5

Trace um triângulo, dado os três lados. Trace um Δ dados 2 lados e o ∠ comum

A —— 3 cm —— B

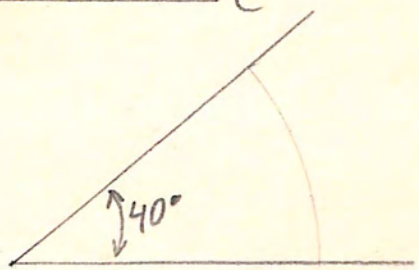
B —— 4 cm —— C

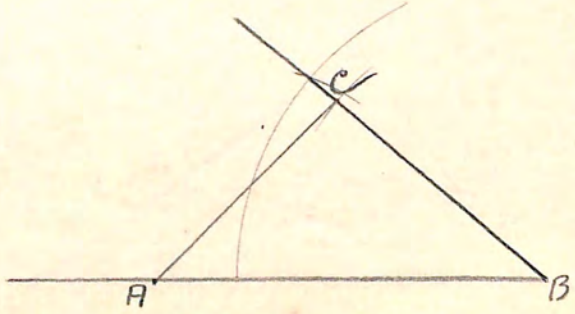
C —— 5 cm —— A



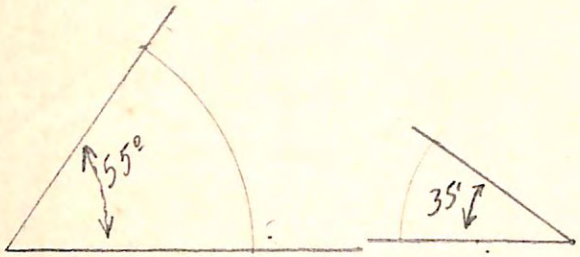
A —— 5 cm —— B

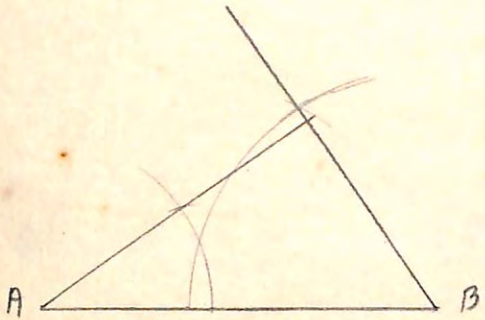
B —— 3,5 cm —— C

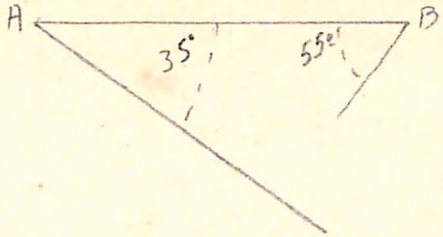


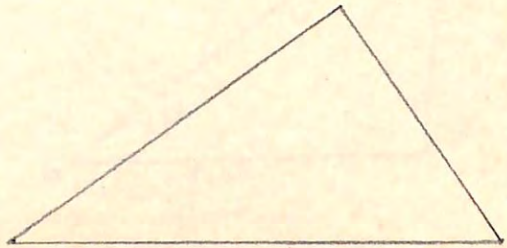


Trace um s. dado os dois ângulos d um lado

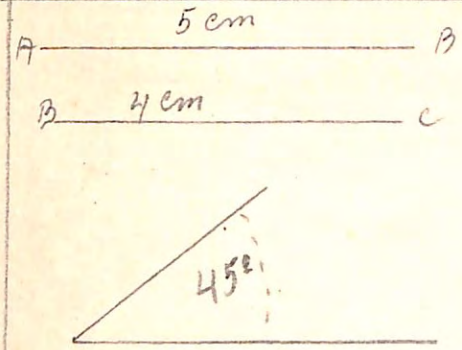


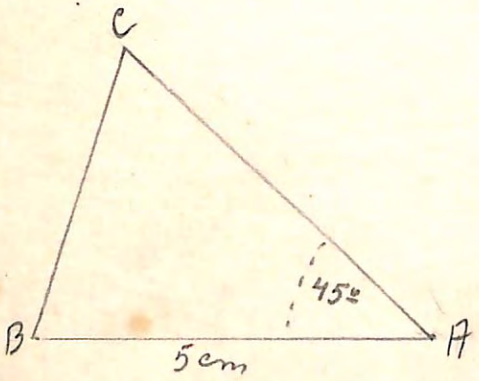




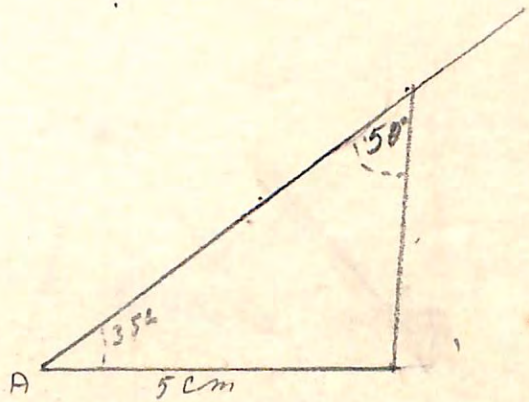


4) Traçar 1 Δ, dados 2 lados e 1 ∠

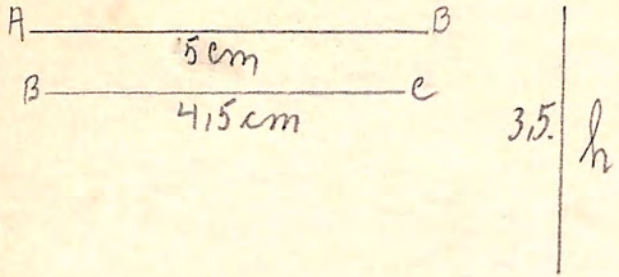


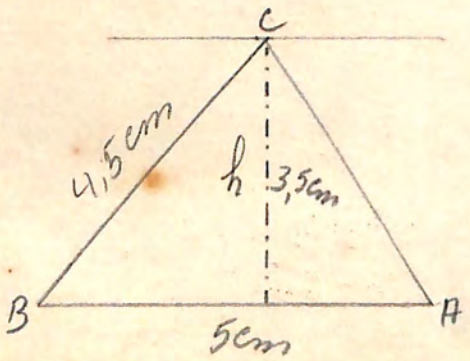


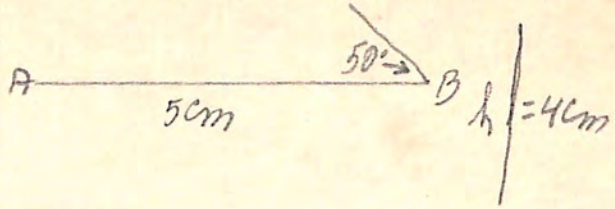
Traçar 1 Δ, dados 2 ∠ e um lado, sendo 1 ∠ oposto ao lado dado.

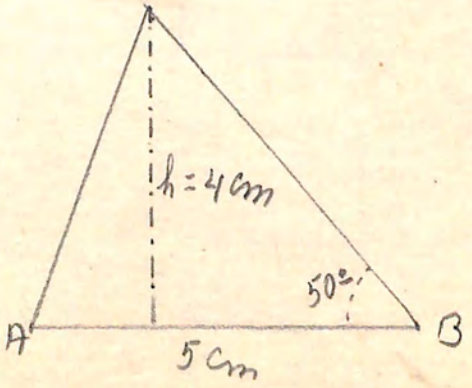


6 Trace 1Δ dados 2 lados e a altura 7 Trace 1Δ, dados: um lado, 1 dos ∨ adjacente

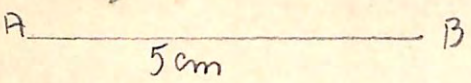


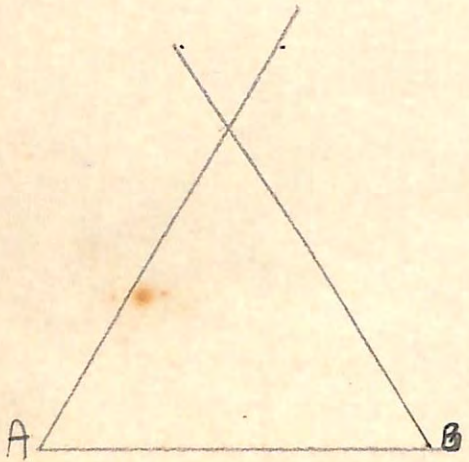


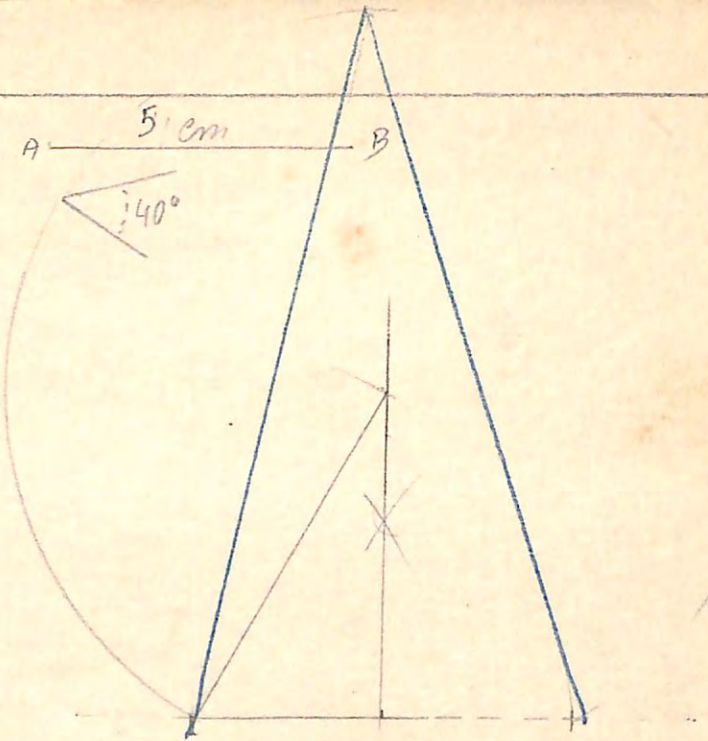




Construir Δ dados 1 lado
1 e ângulo opostos

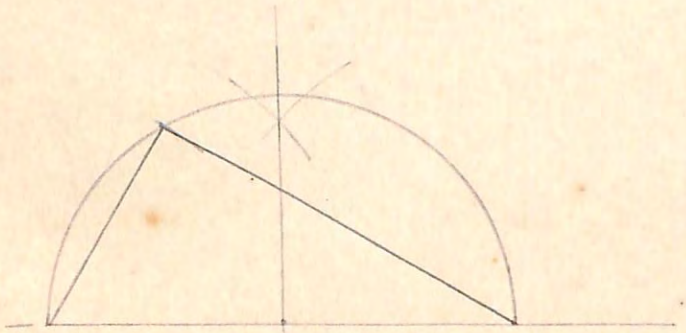






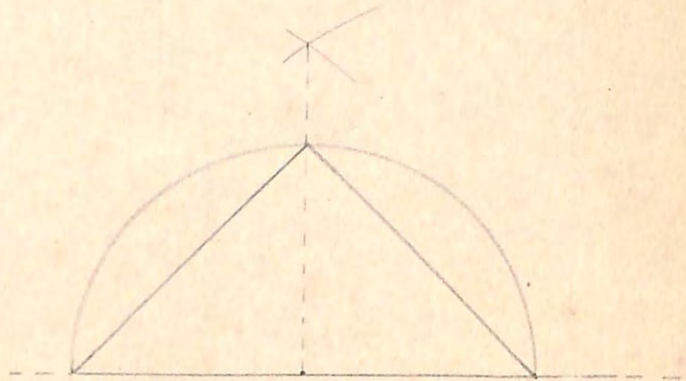
Construir um triângulo retângulo escaleno, dados hipotenusa e 1 cateto.

hip = 6 cm cat = 3 cm.



Construir um triângulo retângulo isósceles, dados a hipotenusa

hip = 6 cm.

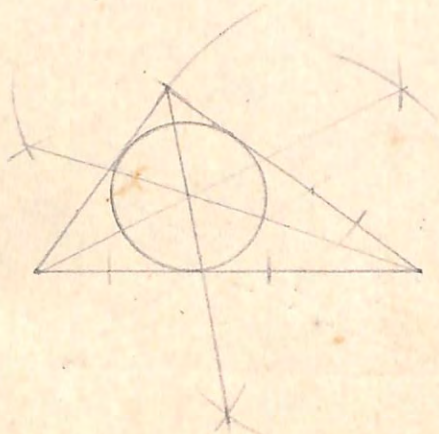


Inscrever uma circunferência em um triângulo dado:

A —— 5 cm —— B

B —— 4 cm —— C

C —— 3 cm —— A

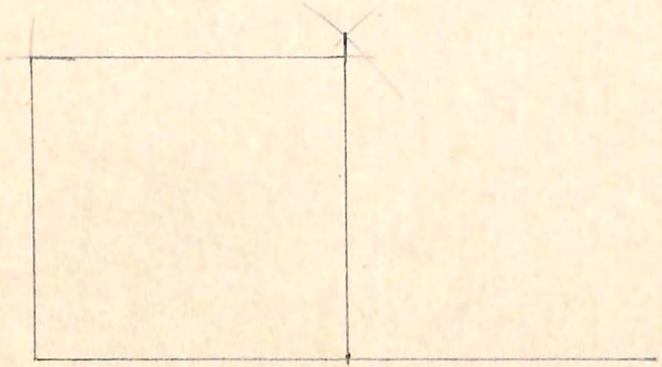


Circunscrever uma circunferência a um triângulo dado.

(traçar as mediatrizes

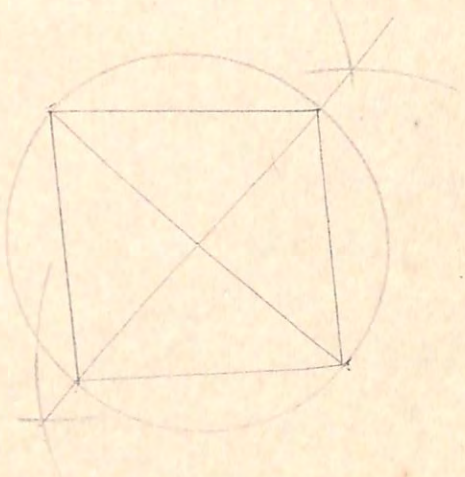
Construir um quadrado, dado o lado

X A 4cm B

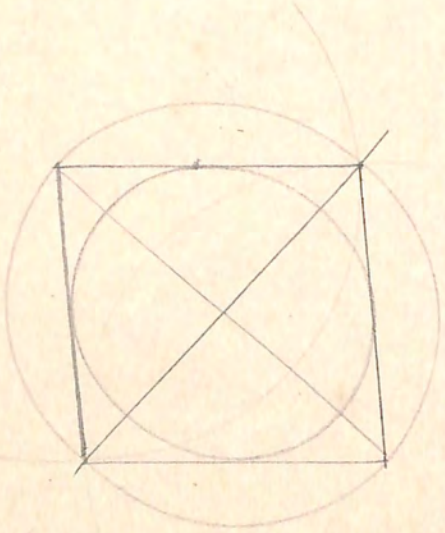


Construir um quadrado dados: a diagonal

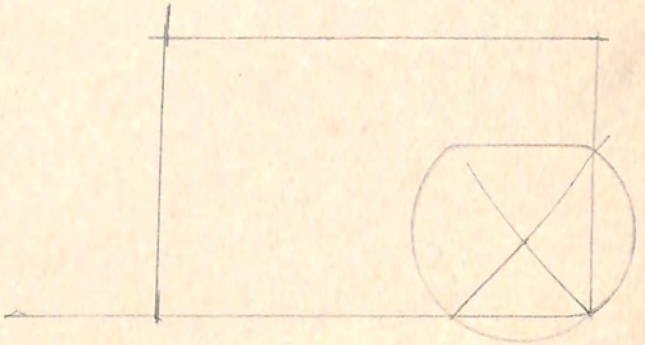
A 5cm C



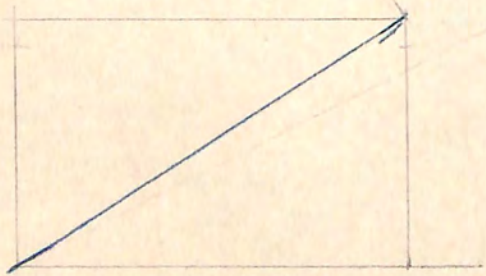
Inscrever e circunscrever uma circunferência em um quadrado.



Construir um retângulo: dados os 2 lados.



Construir um retângulo. dados.
1 lado e diagonal
lado = 5
diagonal = b

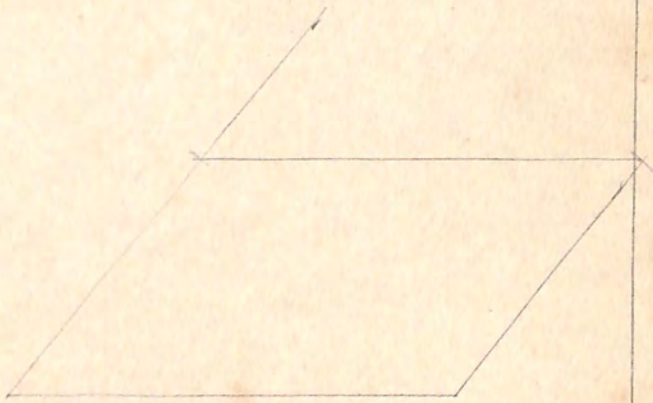


Paralelogramo propriamente dito
1) construir um paralelogramo. dados:
2 lados e o angulo adjacente

6 cm

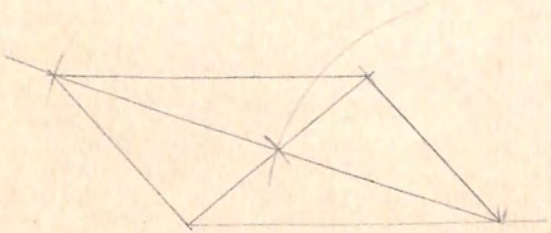
4 cm

150°



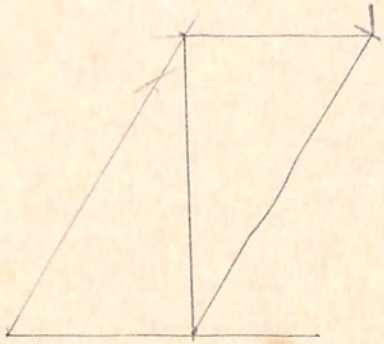
Construir um paralelogramo dados:
1 lado e as 2 diagonais

L = 4 cm
D = 6 cm
d = 3 cm



Construir um paralelogramo dados:

1 lado 2,5 cm
1 ângulo = ∠60°
1 diagonal = 4 cm.



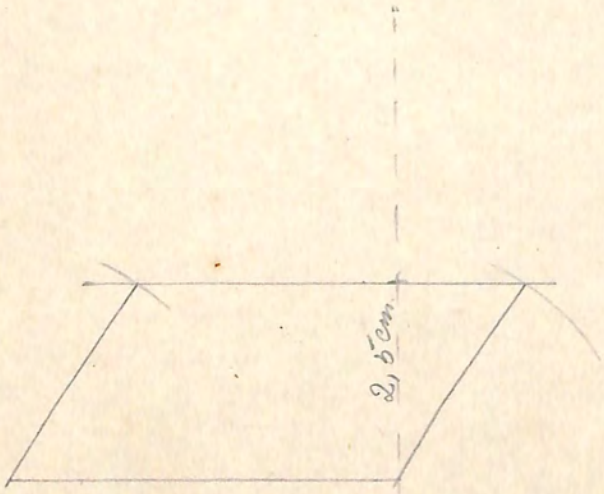
4.

Construir um paralelogramo. dados:

L = 5cm

l = 3cm

altura = 2,5cm



5.

construir um paralelo-gramo. dados:

Diagonais e o ângulo por elas formado

D 6cm

d 4cm

∠ 60°