

Nome do aluno

Nº

Data

/ / 20

Amplitude de um ângulo

1. Utiliza um transferidor e uma régua para construíres um ângulo com amplitude igual a:

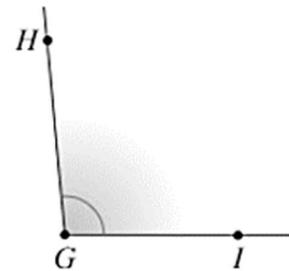
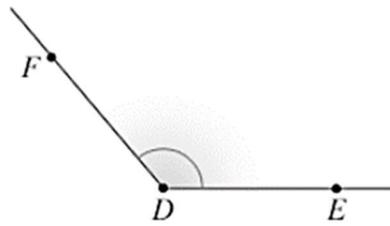
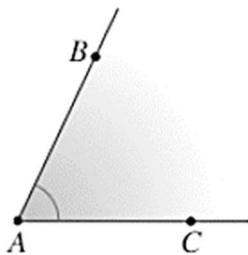
1.1. 75°

1.3. 85°

1.2. 20°

1.4. 145°

2. Considera os ângulos seguintes.



2.1. Regista os ângulos por ordem crescente da sua amplitude.

2.2. Indica uma estimativa para a amplitude de cada um dos ângulos.

2.3. Utiliza o transferidor para determinares a amplitude de cada um dos ângulos e compara-a com a tua estimativa.

3. Observa os pontos assinalados na grelha ao lado.

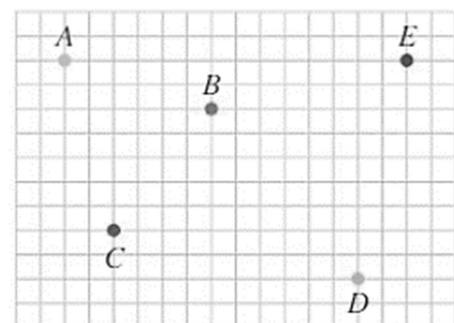
3.1. Desenha os seguintes ângulos:

3.1.1. CAB

3.1.2. DBE

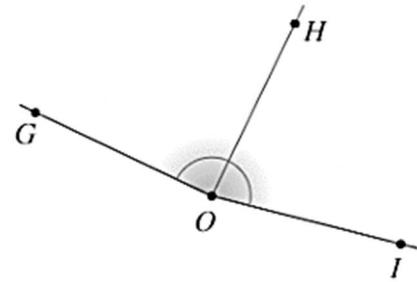
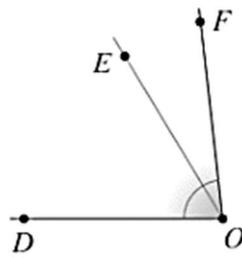
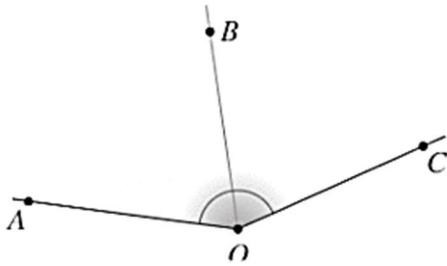
3.1.3. DEB

3.1.4. DCB



3.2. Marca um ponto P , de modo que o ângulo APB seja reto.

4. Regista a amplitude dos ângulos a seguir indicados.



4.1. $\angle AOB$

4.4. $\angle DOE$

4.7. $\angle GOH$

4.2. $\angle BOC$

4.5. $\angle EOF$

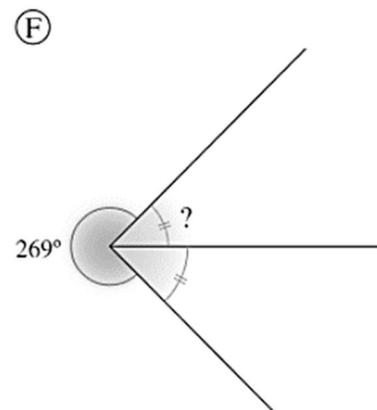
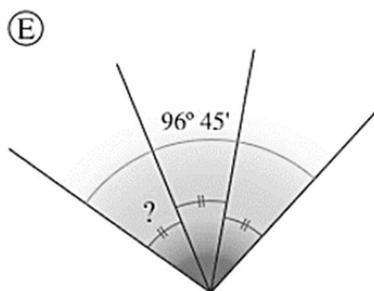
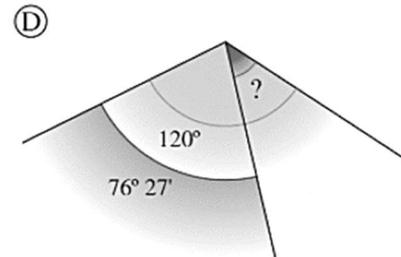
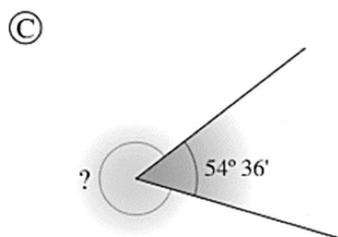
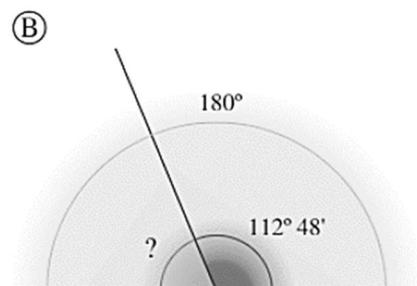
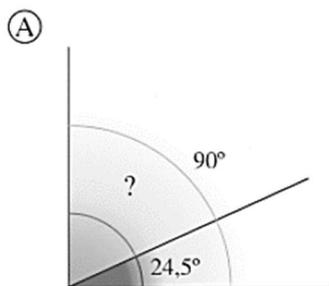
4.8. $\angle HOI$

4.3. $\angle AOC$

4.6. $\angle DOF$

4.9. $\angle GOI$

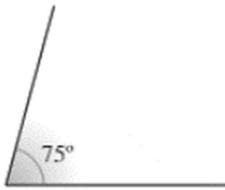
5. Determina a amplitude do ângulo assinalado com ? em cada uma das figuras.



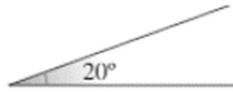
Soluções

1.

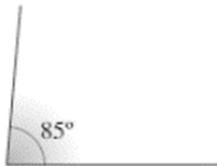
1.1.



1.2.



1.3.



1.4.



2.

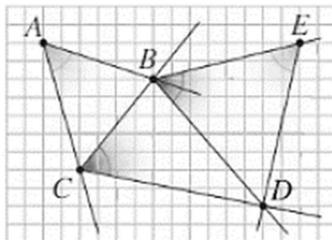
2.1. $B\hat{A}C < H\hat{G}I < F\hat{D}E$

2.2. ---

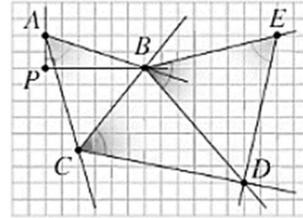
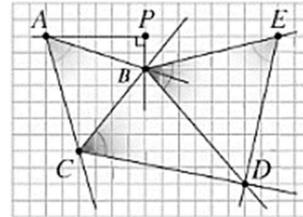
2.3. $B\hat{A}C = 65^\circ; H\hat{G}I = 130^\circ; F\hat{D}E = 95^\circ$

3.

3.1.



3.2. Existem duas respostas possíveis:



4.

4.1. 75°

4.2. 75°

4.3. 150°

4.4. 60°

4.5. 25°

4.6. 85°

4.7. 90°

4.8. 80°

4.9. 170°

5.

5.1. $A = 90^\circ - 24,5^\circ = 65,5^\circ$

5.2. $B = 180^\circ - 112^\circ 48' = 179^\circ 60' - 112^\circ 48' = 67^\circ 12'$

5.3. $C = 360^\circ - 54^\circ 36' = 359^\circ 60' - 54^\circ 36' = 305^\circ 24'$

5.4. $D = 120^\circ - 76^\circ 27' = 119^\circ 60' - 76^\circ 27' = 43^\circ 33'$

5.5. $E = 96^\circ 45' \div 3 = 32^\circ 15'$

5.6. $F = 360^\circ - 269^\circ = 91^\circ$
 $91^\circ \div 2 = 45,5^\circ = 45^\circ 30'$