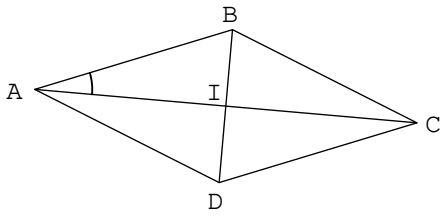
ChingQuizz : 6 exercises available for Quizz assessment :

1. *Names and notations of angles*

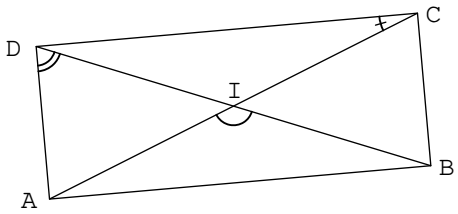
E.9998 Consider the rhombus $ABCD$ shown below :



An angle has been coded. Which of the following notations represent this angle?

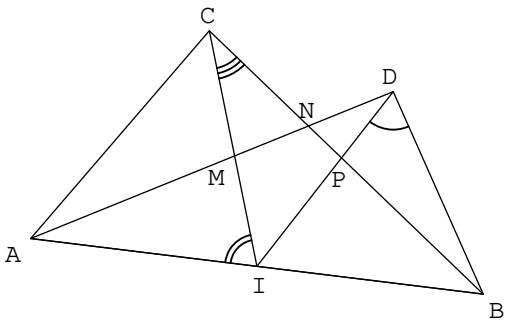
(a) $\angle ABI$ (b) $\angle IAB$ (c) $\angle CAB$ (d) $\angle BAD$

E.9997 Below we consider the rectangle $ABCD$:



Name the three angles coded in the figure.

E.1670 Consider the configuration below where three angles have been coded :



(1) Name the coded angle with vertex D in four different ways.

(2) Name the vertex-coded angle I in four different ways.

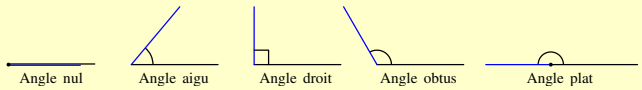
(3) In how many ways can the coded vertex angle C be named?

Hint : we don't ask to give all its names.

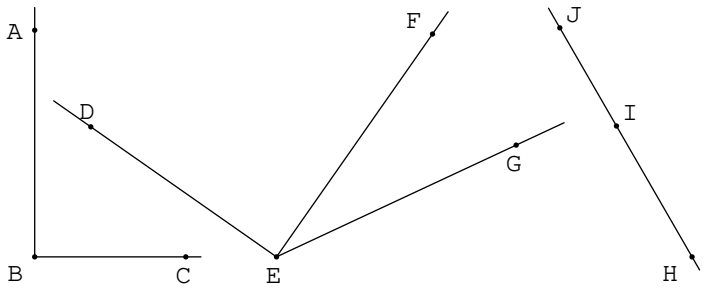
2. *Nature of the angles*

E.1656

Definition : we categorize angles into 5 groups :



Consider the plane provided with the two straight lines and points shown below :

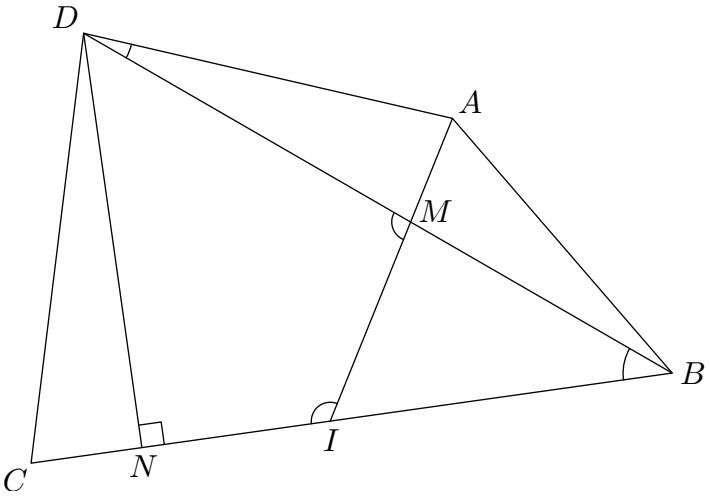


Give the nature of each of the angles below :

(a) $\widehat{ABC}$ (b) $\widehat{DEG}$ (c) $\widehat{DEF}$ (d) $\widehat{FEG}$

(e) $\widehat{JHI}$ (f) $\widehat{HJI}$ (g) $\widehat{JIH}$

E.6582 Consider the figure below :



(1) Name the five angles labeled in this figure and state their types.

(2) What are the types of angles $\widehat{MDB}$ and $\widehat{CIB}$?

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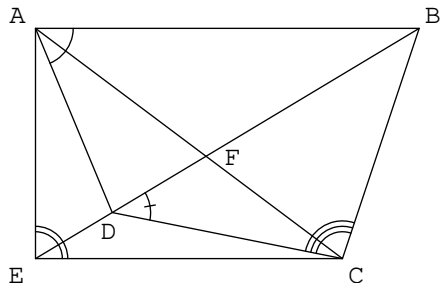
E.1660 In each case, draw an angle of the nature indicated and give the measure of your angle:

(a) Un angle nul (b) Un acute angle (c) Un right angle

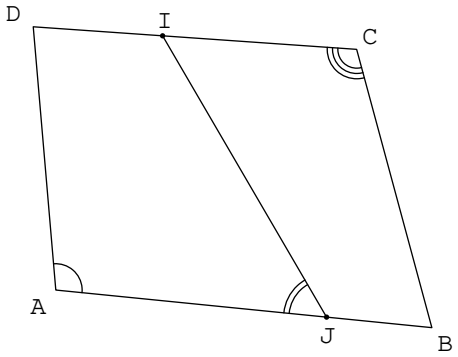
(d) Un angle obtu (e) An angle plat

E.2425 Consider the figure below:



Give the name and nature of all the angles coded on the figure above.

E.2968 In the plane, consider the figure below where the quadrilateral $ABCD$; the point I belongs to the segment $[CD]$ and J is a point of $[AB]$.

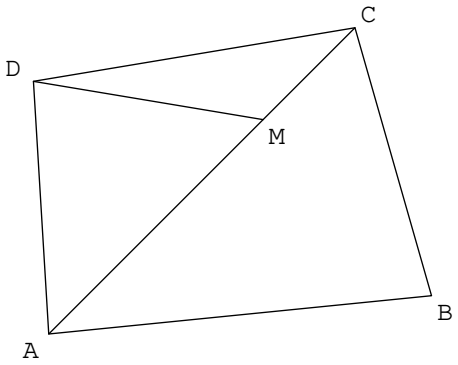


(1) Give the name of each of the angles coded on the figure.

(2) Using the segments drawn in this figure, name, in this figure, all the angles:

(a) aigus (b) obtus (c) plats (d) nuls

E.3008 In the plane, consider the quadrilateral $ABCD$ and M a point on the diagonal $[DM]$.



(1) Name the set of acute angles in this figure.

(2) Name all the obtuse angles in this figure.

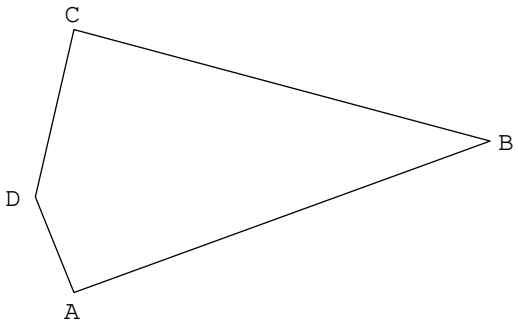
(3) Name, if they exist:

(a) the*(s)* angle*(s)* null*(s)*.

(b) the*(s)* angle*(s)* flat*(s)*.

3. *Comparison of angles without measurements*

E.5585 Consider the quadrilateral $ABCD$ shown below:



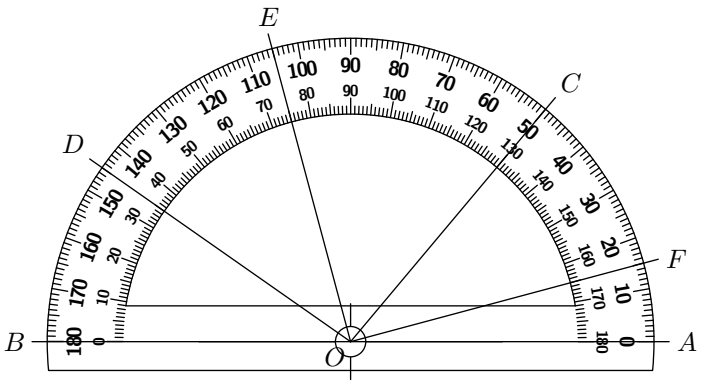
(1) Without justification, compare the measurements of the angles $\angle ADC$ and $\angle ABC$.

(2) Using a square, compare the measures of the angles $\angle DAB$ and $\angle DCB$.

4. *Angle measurement with protractor representation*

E.10634 Consider the configuration below, where points O, B, and A are aligned:

(cc) BY-NC



1 Give the nature of the following angles:

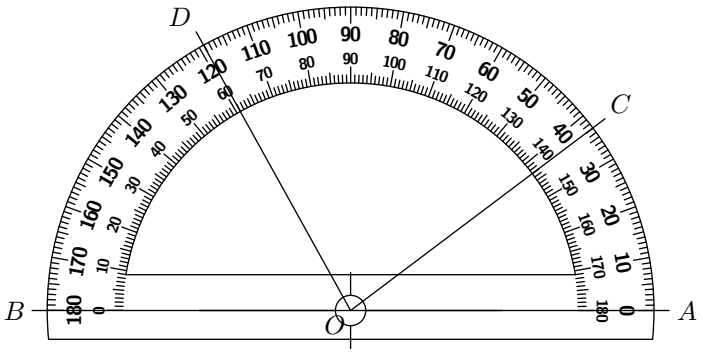
$\widehat{AOB}$; $\widehat{AOC}$; $\widehat{BOD}$; $\widehat{AOE}$; $\widehat{BOF}$

2 Give the measure, in degrees, of the following angles:

a $\widehat{AOC} = \ldots\ldots\ldots^o$ b $\widehat{BOD} = \ldots\ldots\ldots^o$

c $\widehat{AOE} = \ldots\ldots\ldots^o$ d $\widehat{BOF} = \ldots\ldots\ldots^o$

E.10635 Consider the configuration below where points O, B, A are aligned:

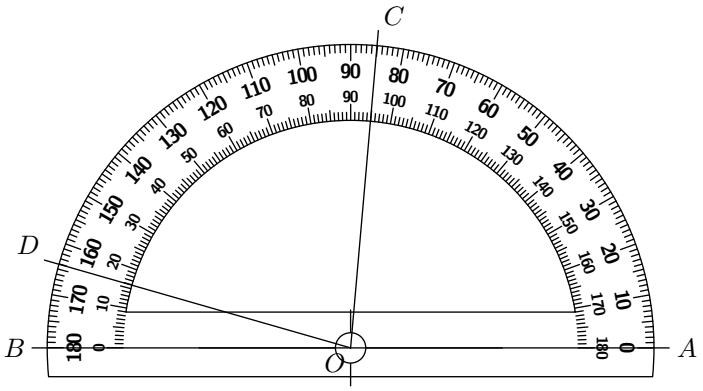


Give the measure, in degrees, of the following angles:

a $\widehat{AOC} = \ldots\ldots\ldots^o$ b $\widehat{BOC} = \ldots\ldots\ldots^o$

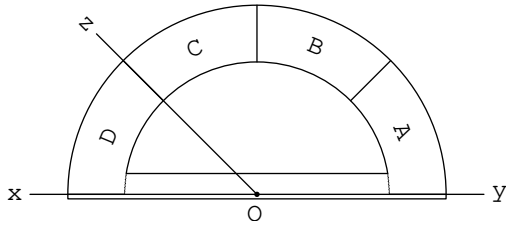
c $\widehat{AOD} = \ldots\ldots\ldots^o$ d $\widehat{BOD} = \ldots\ldots\ldots^o$

E.10636 Consider the configuration below where points O, B, A are aligned:



Give the measure, in degrees, of the angle $\widehat{COD}$.

E.2548 Consider the simplified "*protractor*" below of center O. It has been divided into 4 equal parts "A", "B", "C", "D".



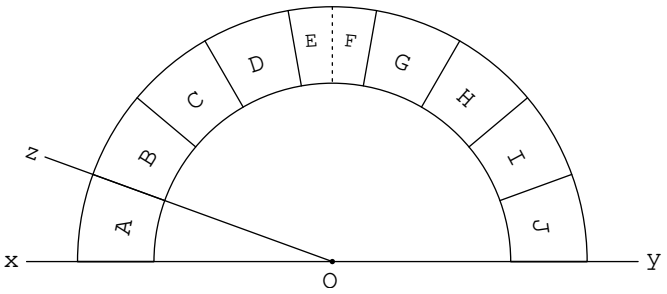
1 Give the measure in degrees of the angle $\angle xOz$. Justify the measure of this angle.

2 Consider the half line $[Or)$ such that $\angle yOr = 120^o$. Which division of the protractor intercepts the half line $[Or)$?

3 Knowing that the angle $\angle yOs$ is an obtuse angle, what divisions of the protractor can be intercepted by the line $[Os)$.

4 Give a frame for the measure of the angle $\angle tOy$ when the line $[Ot)$ intercepts the division "B".

E.2547 Consider the simplified "*protractor*" below. It has been split into 9 equal parts; note that the central part has been redivided into two equal parts.



1 Determine the measure of the angle $\widehat{xOz}$.

2 Consider the following angles:

$\widehat{yO\ell} = 106^o$; $\widehat{xOm} = 12^o$; $\widehat{xOn} = 84^o$

$\widehat{xOp} = 92^o$; $\widehat{yOq} = 53^o$; $\widehat{xOr} = 59^o$

$\widehat{yOs} = 150^o$; $\widehat{xOt} = 174^o$; $\widehat{yOu} = 29^o$

$\widehat{xOw} = 113^o$

Each division of the protractor is intercepted by only one of the preceding angles.

Complete the following table:

Division	A	B	C	D	E	F	G	H	I	J
Angle inter-ceptan t la division										

5. *Angle measurement*

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E.11004 Download the file below and open it with Geogebra :

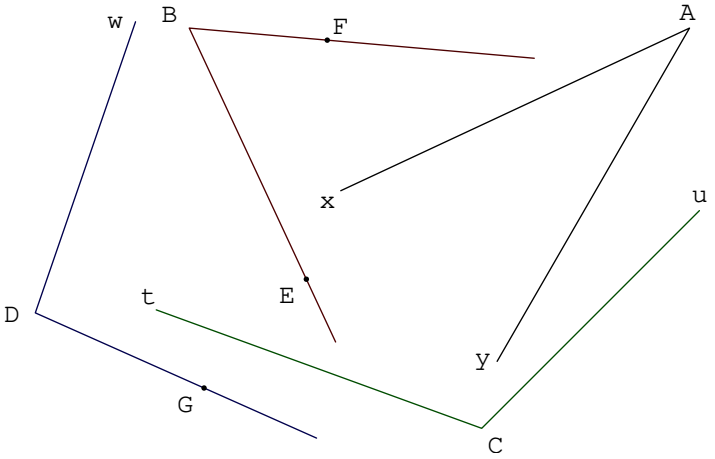
https://chingmath.fr/plus-11004-mesure.ggb

Using the protractor, determine the measurements of the four angles of the quadrilateral :

(a) $\widehat{ABC} = \ldots$ (b) $\widehat{BCD} = \ldots$

(c) $\widehat{CDA} = \ldots$ (d) $\widehat{DAB} = \ldots$

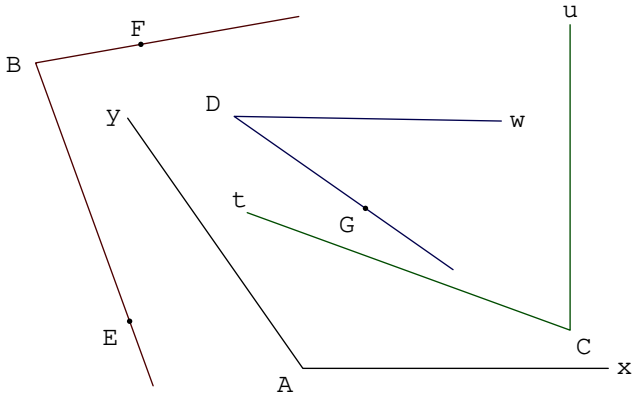
E.2424 Using the protractor, take the necessary measurements to complete the table below :



Angle	$\widehat{yAx}$	$\widehat{FBE}$	$\widehat{tCu}$	$\widehat{wDC}$
Measurement *(in degrees)*				

E.1671 Using the protractor, take the necessary measurements to complete the table below :

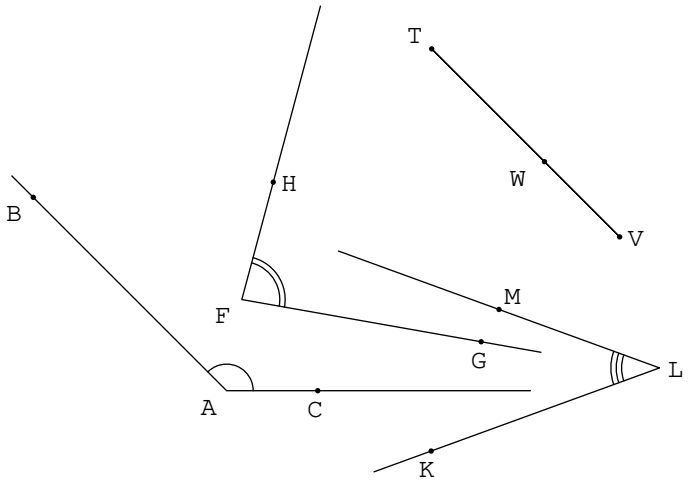
$\widehat{yAx}$; $\widehat{FBE}$; $\widehat{tCu}$; $\widehat{wDG}$



Angle	$\widehat{yAx}$	$\widehat{FBE}$	$\widehat{tCu}$	$\widehat{wDC}$
Measurement *(in degrees)*				

E.1664

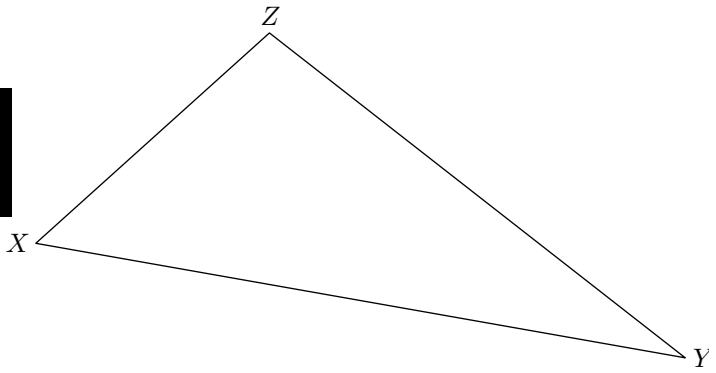
(1) Name then measure, with the help of the reporter, each of the angles coded on the figure below :



(2) Give the measurement of the following two angles :

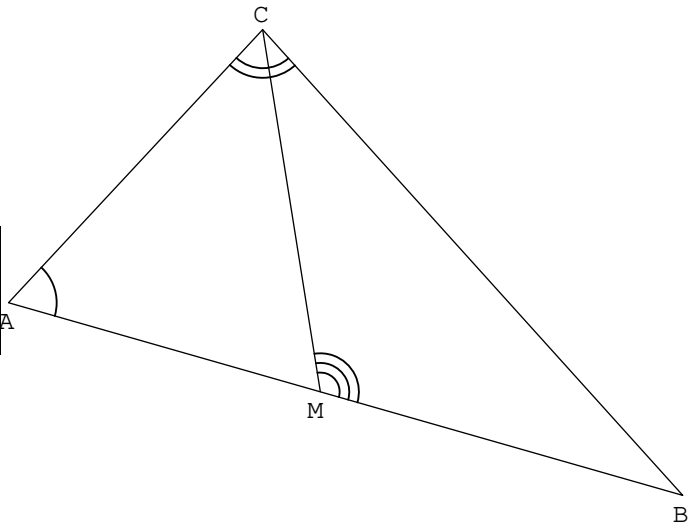
$\angle TVW$ et $\angle TWV$

E.11092 Consider the triangle XYZ shown below :



Name, then give the measure of each of the angles of this triangle.

E.3923 Name the three angles coded on the figure below, then give the measure of these three angles :



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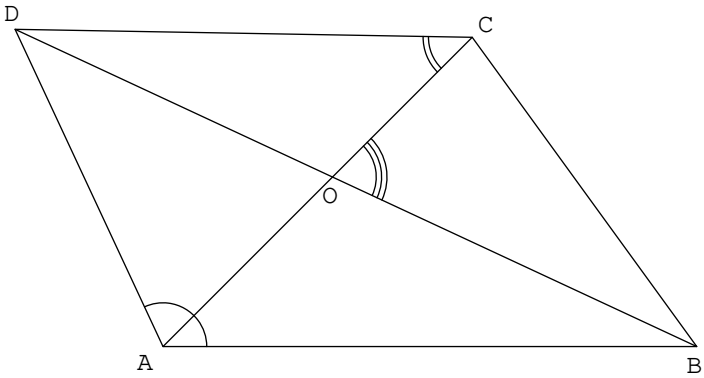
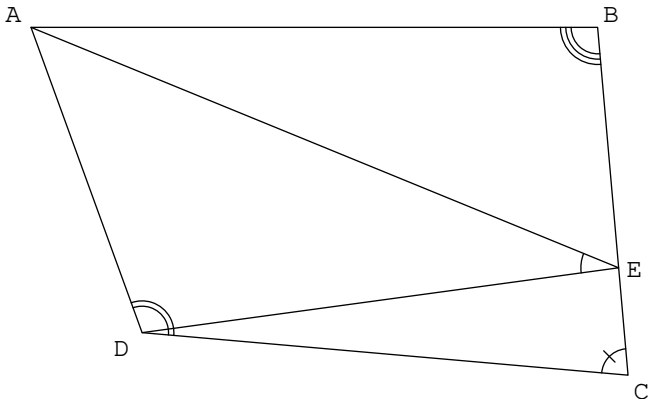
E.2549 Give the names of the coded angles in the figure below and their measurements:



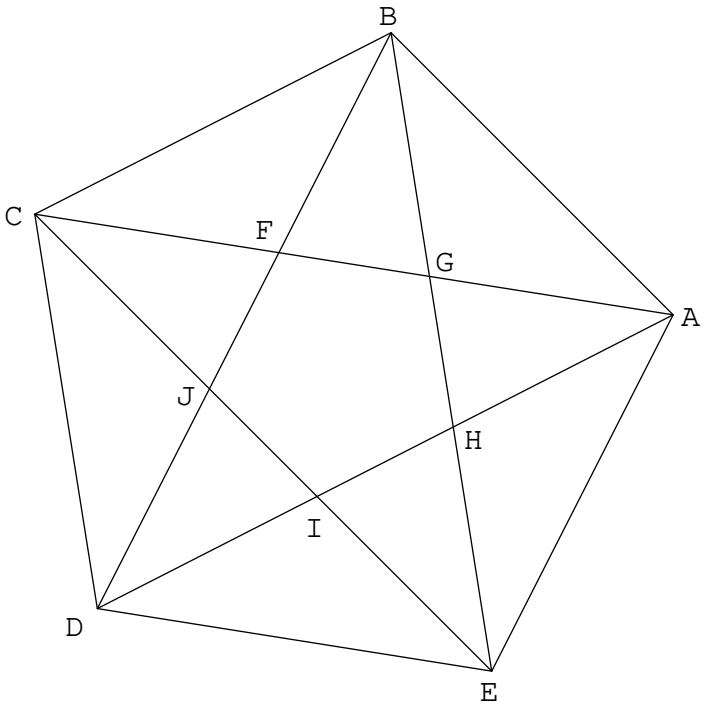
E.1661 The figure below shows the quadrilateral $ABCD$ and the point E belonging to the segment $[BC]$.



Using the protractor, complete the table below with the four coded on the figure and their measurements:

Angle				
Mesure				

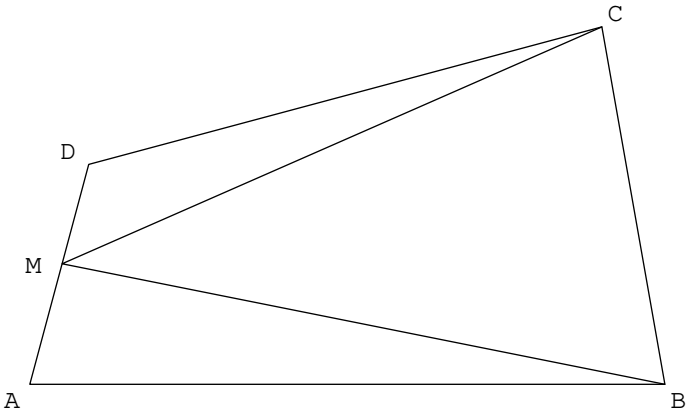
E.6583 Consider the figure below:



Determine the measure of the following angles:

(a) $\angle FDE$ (b) $\angle DFG$ (c) $\angle DBE$ (d) $\angle BAE$

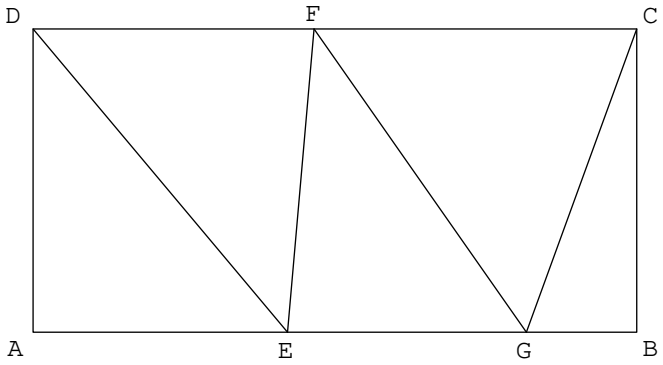
E.1673 The figure below shows a quadrilateral $ABCD$. M is a point of segment $[AD]$:



(1) Name, then measure, to with the reporter, the four angles of quadrilateral $ABCD$.

(2) Give the measure of the $\angle BMC$angle.

E.10374 Consider the rectangle $ABCD$ shown below and the points E, F, G belonging to the sides of this triangle:



Arrange in ascending order the measure of the angles: $\angle FDE$, $\angle DEF$, $\angle EFG$ et $\angle FGC$.

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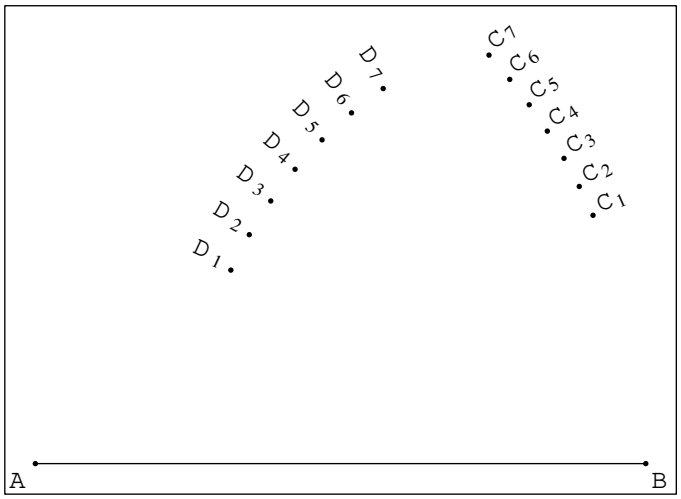
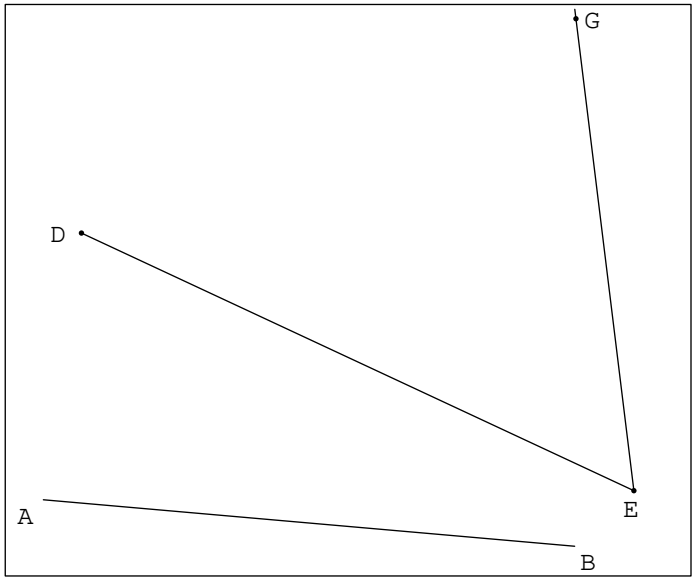
6. Drawing of angles

E.2421 Consider the figure below composed of segment $[AB]$ and 14 points:



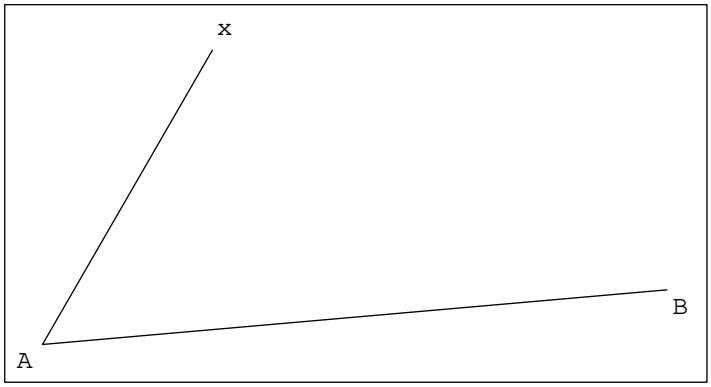
1. Among the seven points C_1, C_2, …, C_7, determine the unique point C verifying the measure: $\widehat{BAC} = 30^o$.
2. Among the seven points D_1, D_2, …, D_7, determine the unique point D verifying the measure: $\widehat{ABD} = 35^o$.

E.1672 We provide the plane with the two segments $[AB]$ and $[DE]$, as well as the half-line $[EG)$:



1. Place a point C in the plane so as to have: $\widehat{ABC} = 25^o$
2. a. Using the protractor, measure the angle $\widehat{DEG}$.
   b. Place the single point, denoted F, on the half-line $[EG)$ making the measurement: $\widehat{EDF} = 40^o$.

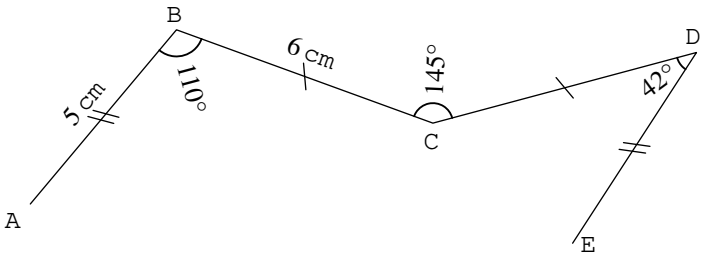
E.2437 Consider the figure below composed of the segment $[AB]$ and the half-line $[Ax)$.



1. Determine the measure of the angle $\angle xAB$.
2. Place on the half line $[Ax)$ the point C checking the following measure:

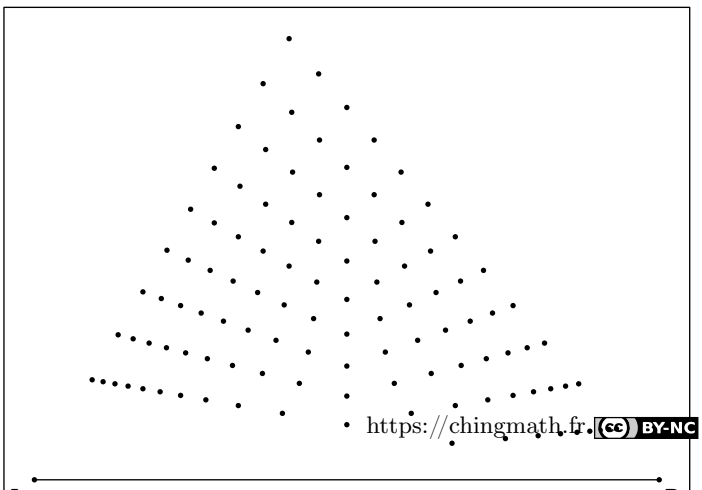
   $\angle CBA = 25^o$
3. Give the measure of the angle $\angle ACB$.

E.2980 Using your drawing instruments, reproduce the figure below:



7. Drawing Triangles (2 Angles, 1 Side): Introduction

E.2422 Consider the segment $[AB]$ below:



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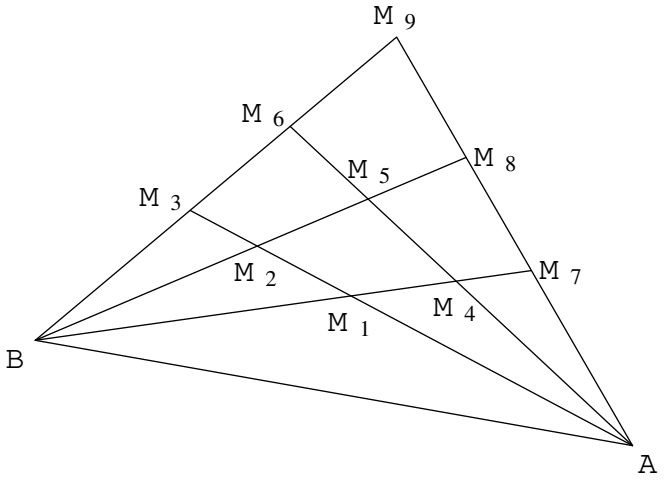
Among the points below, determine the single point C verifying the following two relations:

$\widehat{BAC} = 45^o$; $\widehat{ABC} = 35^o$

Determine the location of this point.

E.6584 Consider the figure below:

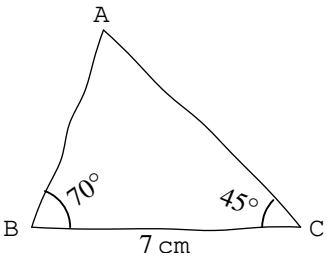


Among the points M_1 to M_9, which point should be chosen on the figure for a construct a triangle ABC verifying the following measures:

$\angle BAC = 50^o$; $\angle ABC = 18^o$; $\angle ACB = 112^o$

8. *Triangles tracing*

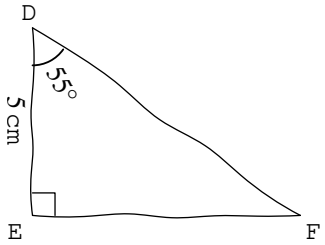
E.1662



The figure opposite was created freehand.

Using geometry instruments, reproduce this figure.

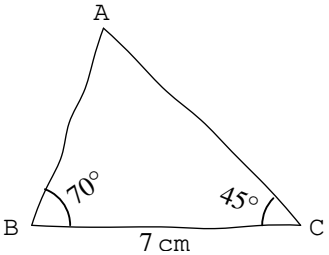
E.10004



The figure opposite was created freehand.

Using geometry instruments, reproduce this figure.

E.10637



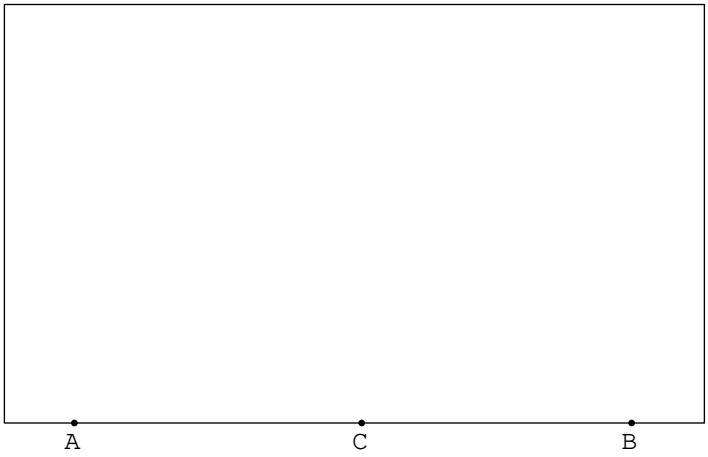
The figure opposite was created freehand.

Using geometry instruments, reproduce this figure.

E.10002 Draw the triangle DEF having measure:

$DE = 8\,cm$; $\angle EDF = 35^o$; $\angle FED = 50^o$

E.2551



In the frame above, draw the following triangles:

1. triangle ABM verifying:
   $\widehat{MAB} = 85^o$; $\widehat{ABM} = 35^o$
2. triangle ANC verifying:
   $\widehat{NAC} = 30^o$; $\widehat{NCA} = 130^o$
3. triangle BPC verifying:
   $\widehat{PBC} = 39^o$; $\widehat{PCB} = 116^o$

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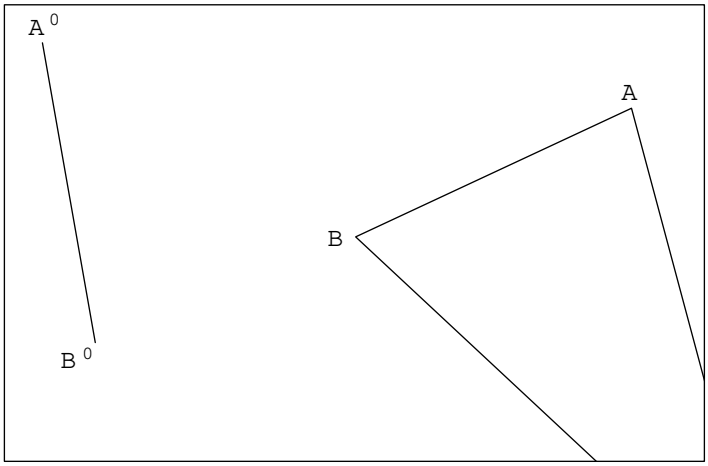
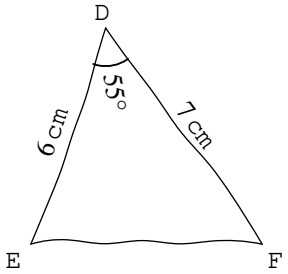
E.3911 The ABC triangle has been drawn out of frame. In order to redraw it from the segment $[A'B']$, transfer the angles $\angle BAC$ and $\angle ABC$ to A' and B' respectively.



9. *Drawing triangles (1 angle, 2 sides)*

E.10003



The figure opposite was created freehand.

Using geometry instruments, reproduce this figure.

E.2666 Draw the triangle ABC having measure:

$\widehat{CAB} = 115^o$; $BC = 8\,cm$; $AB = 5\,cm$

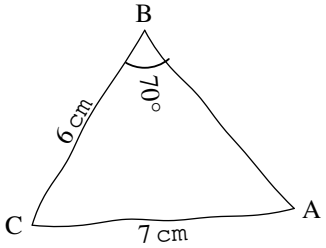
E.2423

1. Freehand draw any ABC triangle. Then transfer the following indications to it:

   $AB = 8\,cm$; $AC = 6\,cm$; $\widehat{CAB} = 45^o$

2. Using your measuring instruments, construct the triangle ABC respecting the indications above.

E.1667

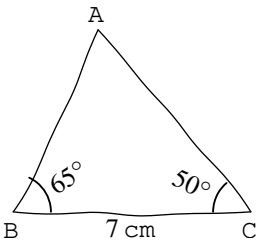


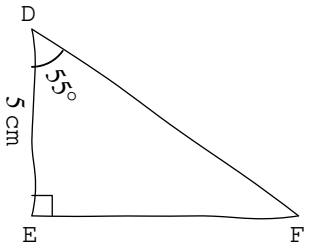
The figure opposite was created freehand.

Using geometry instruments, reproduce this figure.

10. *Drawing triangles*

E.10411 The two figures below were made freehand:





Using geometric instruments, reproduce these figures

E.10001

1. Draw the segment $[DE]$ of length $6\,cm$.
2. Draw the circle $\mathscr{C}$ with center E and radius $5.5\,cm$.
3. Draw the half line $[Dx)$ denoting the following angle measure:

   $\angle xDE = 58^o$

4. Justify that there are two possibilities for placing a point F that allows one to draw the triangle DEF with the following measures:

   $DE = 6\,cm$; $EF = 5.5\,cm$; $\angle FDE = 58^o$

11. *Drawing of polygons*

E.2603 Reproduce the figure below to full size:

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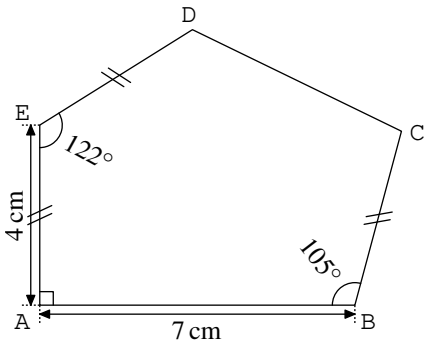
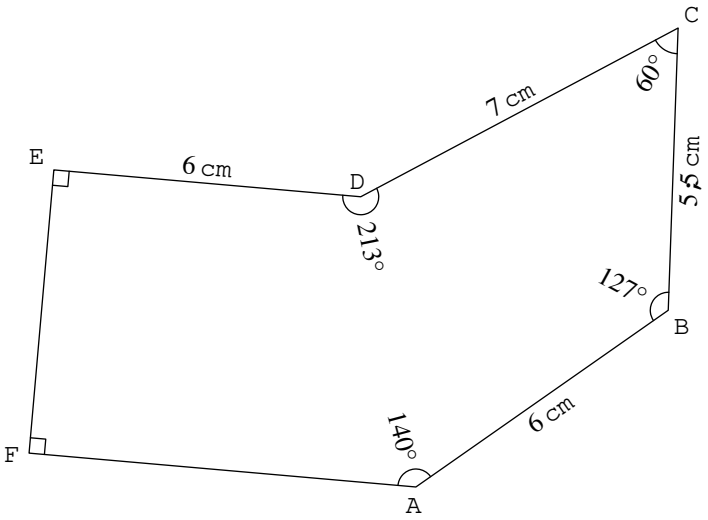
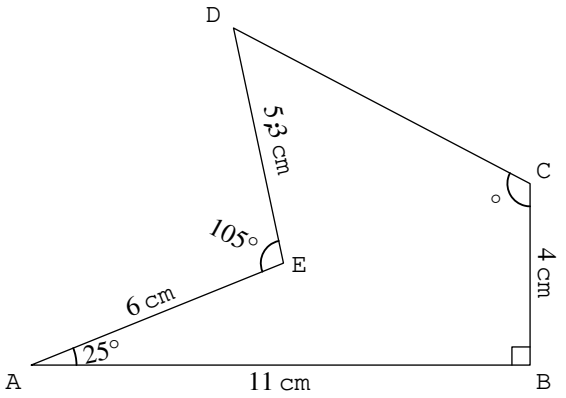


E.2969 Reproduce the figure below, observing the indications shown:

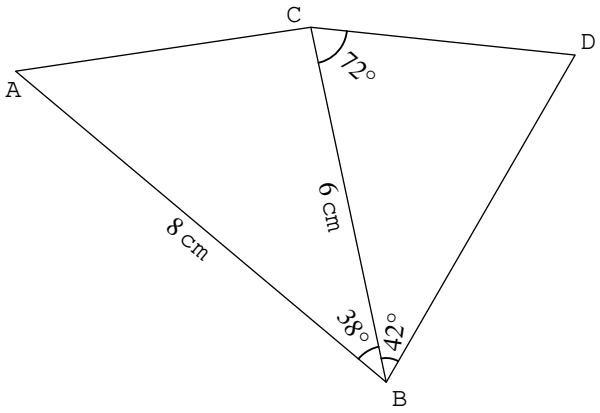


E.2552 The figure below is not full-scale. It represents a pentagon $ABCDE$.

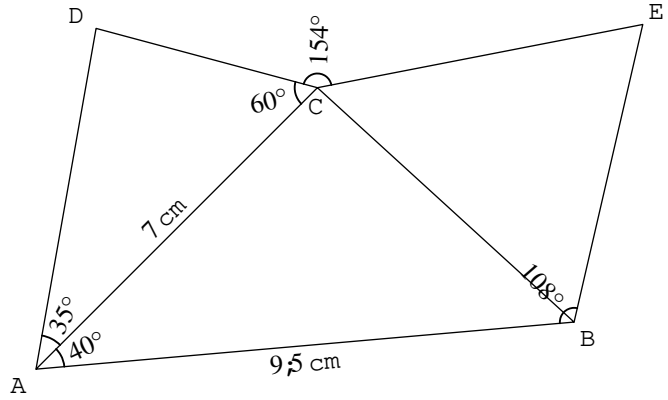


1. Make this figure full-scale.
2. Determine the measure α^o of the angle $\widehat{DCB}$ using the protractor.

E.3009 The figure below is made up of two triangles. Reproduce this figure, respecting the dimensions indicated:

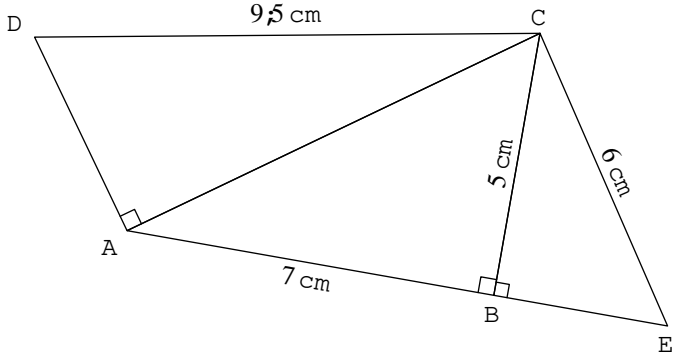


E.6388 Reproduce the figure below:



12. *Tracing polygons (difficulty with right-angled triangle)*

E.6320 Reproduce the following figure using a ruler and a compass:



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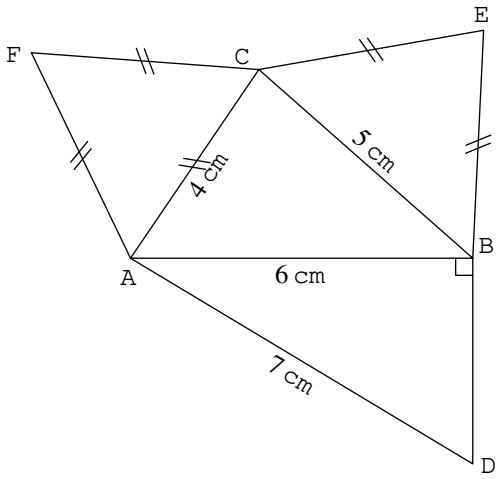
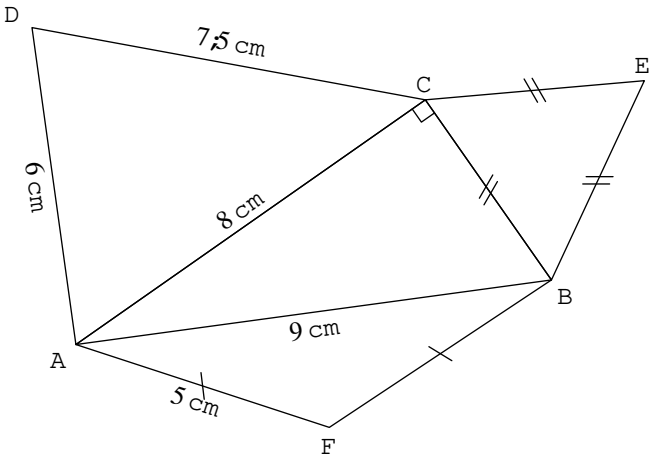
E.2886 In the plane, consider the figure below :



1) Give the nature of each of the following triangles ABC, ECB, ABD, ACF.

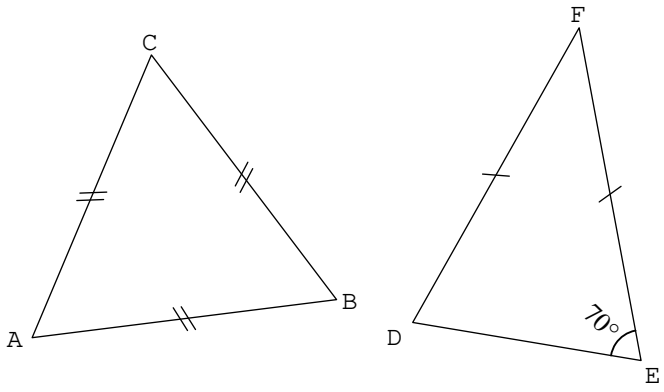
2) Reproduce this figure in true sizes on your copy.

E.6345 Reproduce the following figure using a ruler and a compass :



13. *Tracing of particular triangles and angles*

E.5582 We consider the two triangles represented below :



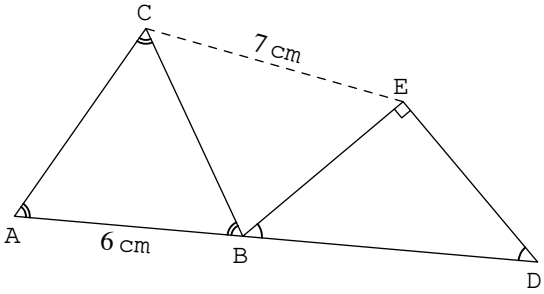
1) a) What is the nature of the triangle ABC?

b) What is the measure of the angle $\angle ABC$?

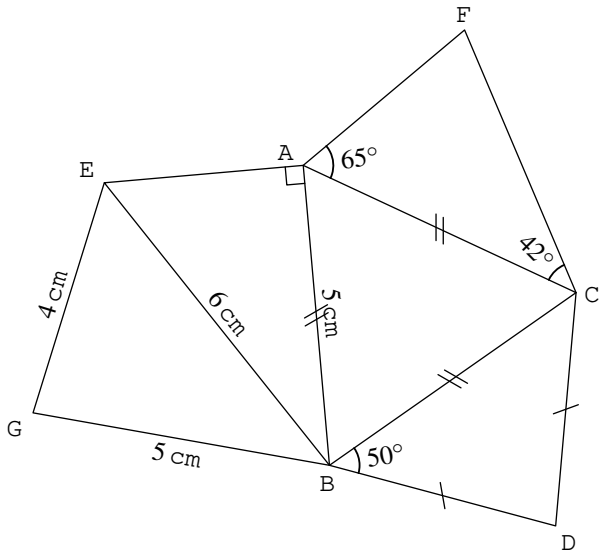
2) a) What is the nature of the triangle DEF?

b) What is the measure of the angle $\angle EDF$?

E.5605 Reproduce the figure below :



E.6636 Consider the figure below :



Reproduce this figure in full size.

14. *Write a construction program*

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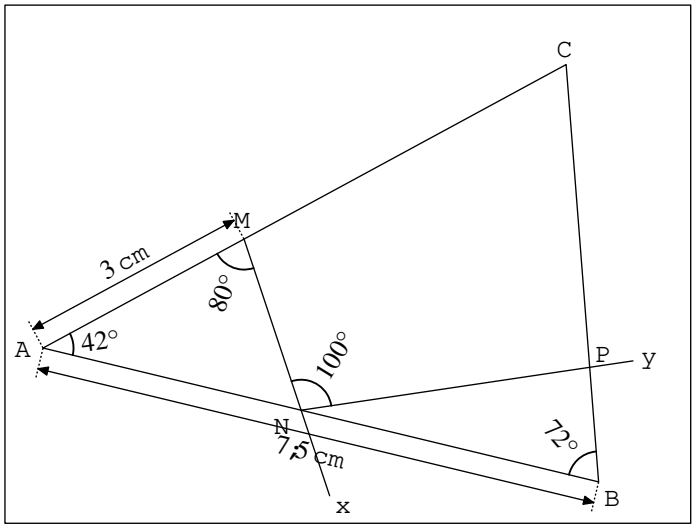
E.3924 Give the plot program for the figure below :



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