Read the instructions on the reverse

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1-USING THE SET SQUARES:
Triangles and parallels

Read the instructions on the reverse

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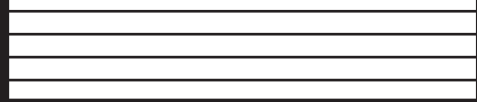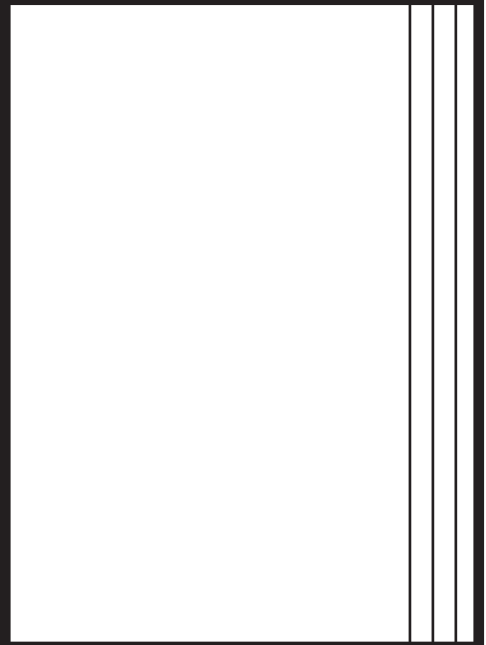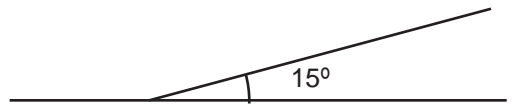Using the tiangles fill in the three boxes below with parallels follofing the directions given. Try to keep the same distance between the straight lines and finish the exercice with black ink.
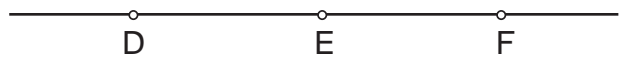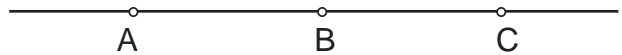
In this exercice you need to darw the angles requested for each given point helping yourself with the angles the triangles offer.

WARNING!!: It is important that you label each angle with a little arc and you note its length in degrees. EXAMPLE:

15º

A- 15º (45-30 ó 60-45)
B- 30º
C- 45º
D- 60º
E- 75º (45+30)
F- 90º
G-105º (45+60)
H- 120º (supplementary of 60)
I -135º (90+45, supplementary of 45)
J-150º (60+90,supplementary of 30)

A   B   C

D   E   F

G   H   I   J

Goup   Last names, Name   Date

Following you can see four line segments AB, CD, EF and GH. Using compass and ruler carry out the operations or exercices requested.
DO NOT USE THE RULER TO TAKE DIMENSIONS, ONLY TO TRACE STRAIGHT LINES. USE THE COMPASS TO TAKE AND COPY THE LENGTHS.

A ———————————— B C —————————————————— D E ———— F G ———————— H

Copy the corresponding line segments from each given point.

| AB | CD | EF | GH |

o
A

o
C

o
E

o
G

From the point P trace the segment AD= AB+CD (Place the location of A on the given point P)

o
P

From the point Q trace the segment CG=CD - GH (Place the location of C on the given point Q)

o
Q

From the point R trace the segment AF= AB+CD+EF (Place the location of A on the given point R)

o
R

From the point S trace the segment AB+CD-GH (Place the location of A on the given point S)

o
S

From the given point T trace the segment ABx3 (place the location of A on the given point T)

o
T

From the given point W copy the line segment CD and divide it into two equal parts. In order to do that you need to finde the Midpoint M drawing the line segment perpendicular bisector.(place the location of C on the given point W)
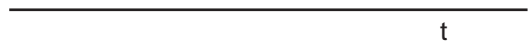
o
W

| Goup | Last names, Name | | Date |

| 1º ESO | laslaminas.es | Worksheet tittle | |
| | | 4- Operations with line segments | |

Draw the AB line segment bisector.

A ————————————— B

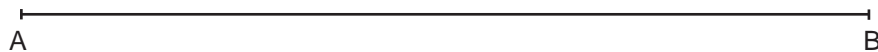Trace the perpendicular line to the given one, r, though P, a point onto it.

P ∘————————————— r

Trace a parallel line to t thorugh point B.

Trace the perpendicular line to the given line, s, through the outer point A.

A
∘

B
∘

——————————— s

——————————— t

Divide the segmento line AB into 9 equal parts.

A ————————————————————————— B

WARNING!!: You must enhance the final result or solution of each problem with black ink and be VERY CAREFUL with being neat and clear in your worksheet final presentation.
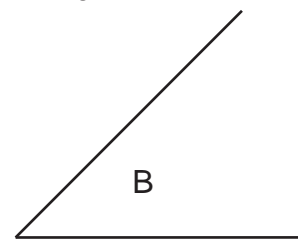
Goup

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Worksheet tittle
5- Parallels and Perpendiculars with ruler and compass
Line segment division into equal parts

WARNING!!: You must enhance the final result or solution of each problem with black ink and be VERY CAREFUL with being neat and clear in your worksheet final presentation.
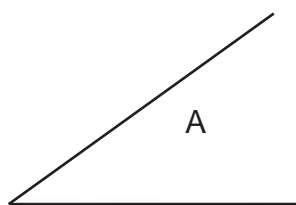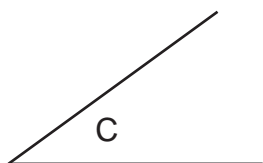
With compass and ruler, copy the angle A
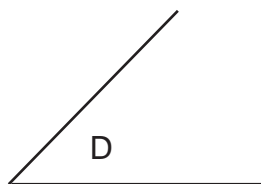on the straight line r locating the vertex in point V.
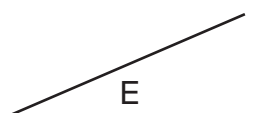
Trace the angle B bisector.

A

B

V   r

Below on the left thre angles: C, D and E are given. Carry out the operations requested on each straight line. It is important that you label CLEARLY each angle solution.

C

On the straight line s,
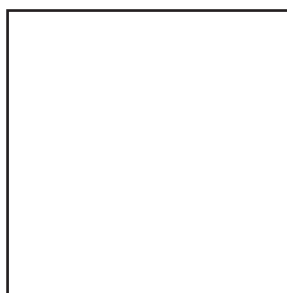placing the vertex in point
P, draw the angle C+D.

P   s

D

On the straight line t,
placing the vertex in point
Q, draw the angle D-E.

Q   t

E

On the straight line r,
placing the vertex in point
V, draw the angle C+D-E.

V   r

Divide the given square into 9 equal squares. You must divide two of its sides (two that are perpendicular) into three equal parts using thales' theorem and after that trace parallels thorugh the division marks with the triangles (set squares).