



# RECURSOS DIDÁCTICOS

QUINTO DE SECUNDARIA

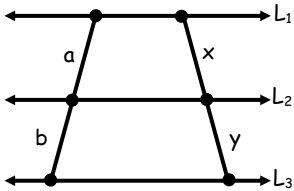
GEOMETRÍA

## PROPORCIONALIDAD DE SEGMENTOS



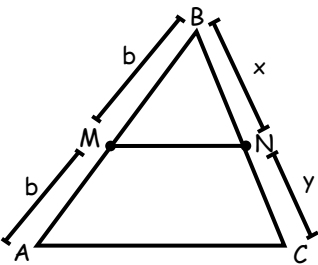
TEOREMA DE THALES

Si:  $L_1 \parallel L_2 \parallel L_3$



$$\frac{a}{b} = \frac{x}{y}$$

MUCHO OJO



Si:  $\overline{MN} \parallel \overline{AC}$

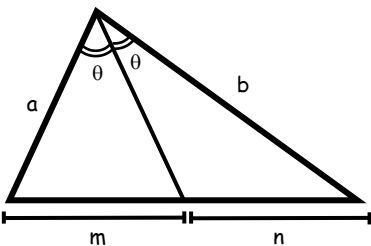


$$\frac{a}{b} = \frac{x}{y}$$

Ahora :

Propiedad de la

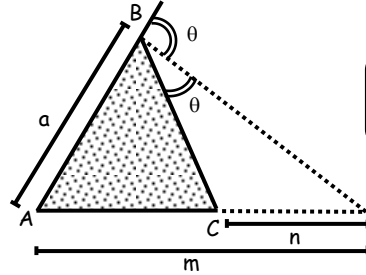
BISECTRIZ INTERIOR



$$\frac{a}{b} = \frac{m}{n}$$

Y si fuera una

BISECTRIZ EXTERIOR



$$\frac{a}{b} = \frac{m}{n}$$

SEMEJANZA DE TRIÁNGULOS

TOMA NOTA



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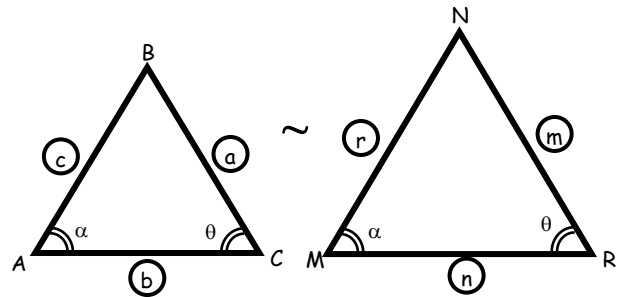
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Si:  $\hat{m}A = \hat{m}M$  y  $\hat{m}C = \hat{m}R$

\*  $\triangle ABC \sim \triangle MNR$

Se lee: Triángulo ABC es semejante al triángulo MNR

**LADOS HOMÓLOGOS**

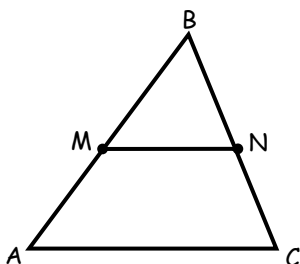
.....  
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"a" con m  
 "b" con n  
 "c" con r

**PROPIEDAD:**

$$\frac{a}{m} = \frac{b}{n} = \frac{c}{r} = k$$

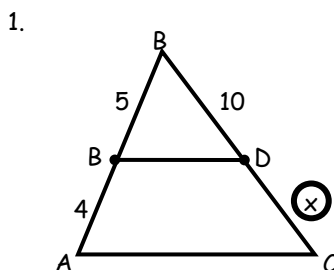
**IMPORTANTE:**



Si:  $\overline{MN} \parallel \overline{AC}$

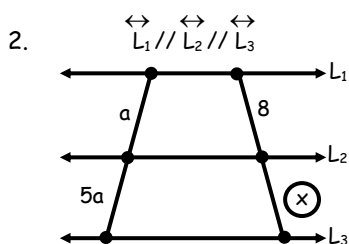
\*  $\triangle MBN \sim \triangle ABC$

Resuelve los siguientes ejemplos y calcular "x" en cada caso.

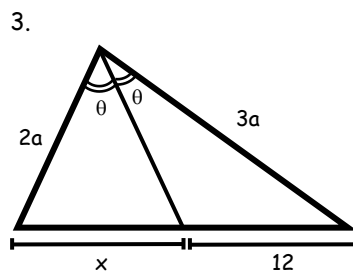


$\overline{BD} \parallel \overline{AC}$

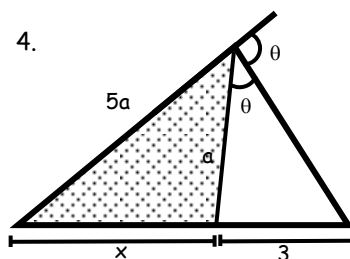
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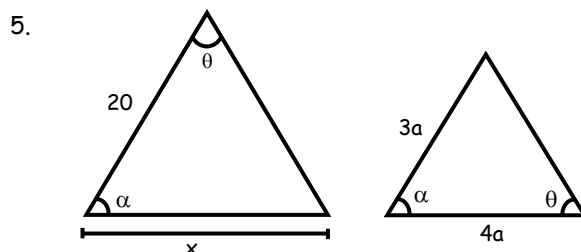
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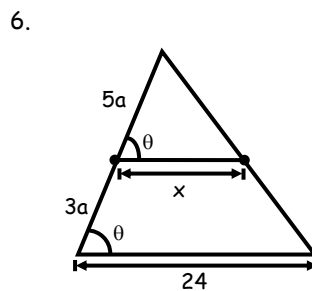
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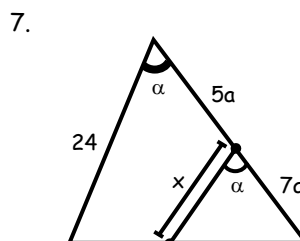
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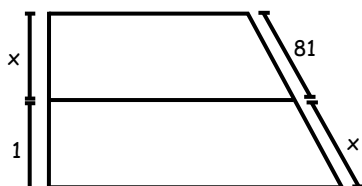


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## EJERCICIOS DE APLICACIÓN

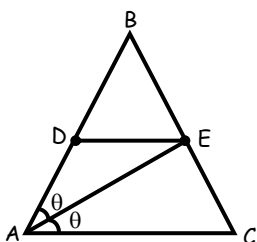
1. Hallar "x" en el trapecio.

- a) 1
- b) 2
- c) 3
- d) 9
- e) 8



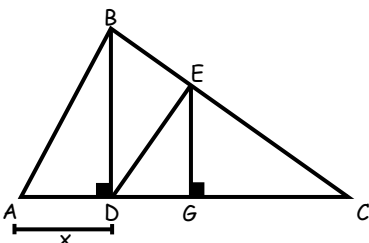
2. Hallar: "ED";  $\overline{ED} \parallel \overline{AC}$ ;  $BD = 8$ ;  $3BE = 4EC$

- a) 8
- b) 4
- c) 3
- d) 7
- e) 6



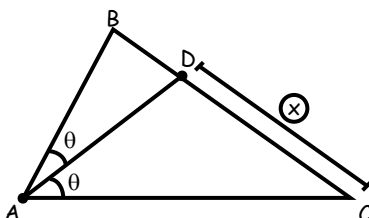
3. Calcular "x";  $\overline{AB} \parallel \overline{DE}$ ;  $DG = 6$ ;  $GC = 9$

- a) 5
- b) 10
- c) 7
- d) 8
- e) 4



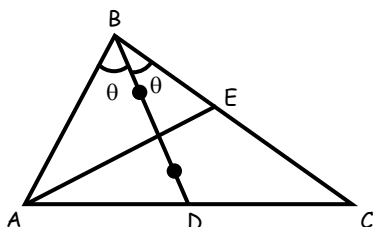
4. Hallar "x";  $AB = 12$ ;  $AC = 16$ ;  $BC = 14$

- a) 3
- b) 6
- c) 4
- d) 8
- e) 10



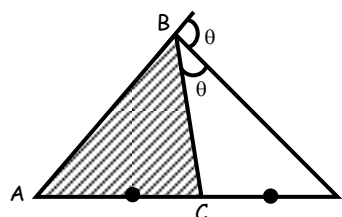
5. Hallar "AB";  $BE = 4$  y  $EC = 12$

- a) 4
- b) 12
- c) 6
- d) 8
- e) 10



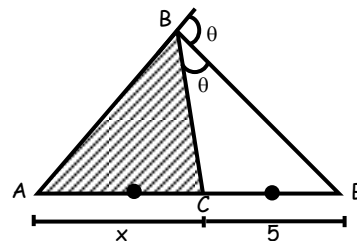
6. Hallar "AB";  $BC = 7$

- a) 7
- b) 14
- c) 10
- d) 8
- e) 9



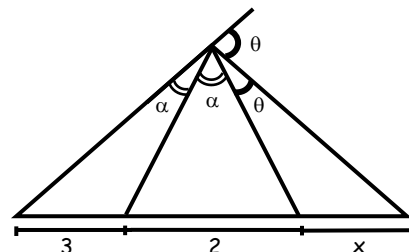
7. Hallar "x";  $AB = 3BC$

- a) 15
- b) 10
- c) 5
- d) 20
- e) 1



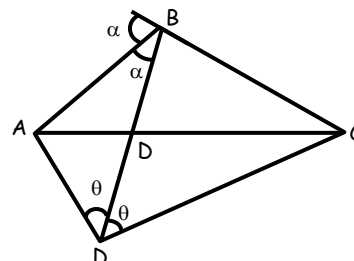
8. Hallar "x"

- a) 5
- b) 10
- c) 15
- d) 20
- e) 8



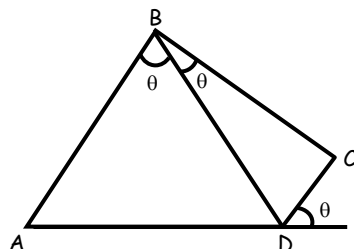
9. Hallar "AD";  $DC = 8$  y  $\frac{BC}{BD} = \frac{7}{3}$

- a) 5
- b) 6
- c) 7
- d) 4
- e) 8



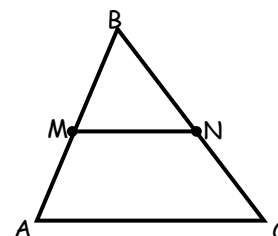
10. Calcular "BD";  $AB = 9$  y  $BC = 4$

- a) 4
- b) 5
- c) 6
- d) 7
- e) 9



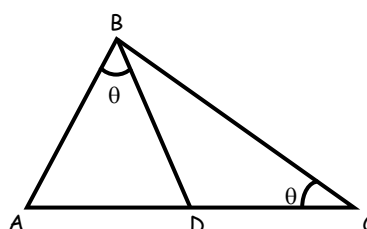
11. Calcular "MN";  $AC = 60$ ;  $2NC = 3BN$ ;  $\overline{MN} \parallel \overline{AC}$

- a) 12
- b) 24
- c) 36
- d) 48
- e) 60



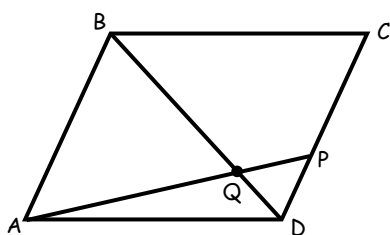
12. Hallar "AB";  $AD = 2$ ;  $DC = 6$

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5



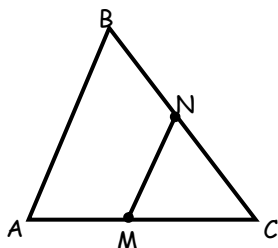
13. Hallar "BQ"; QD = 5 ; CP = 3PD  
 ABCD : Paralelogramo

- a) 5
- b) 10
- c) 15
- d) 20
- e) 25



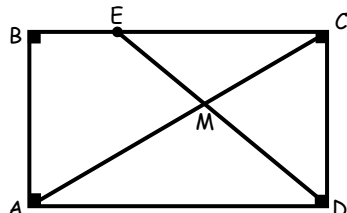
14. Hallar "NC";  $\overline{MN} \parallel \overline{AB}$ ; BN = 4 ; 6AB = 7MN

- a) 8
- b) 12
- c) 16
- d) 20
- e) 24



15. Hallar "AD"; BE = 3 y 3AM = 4MC

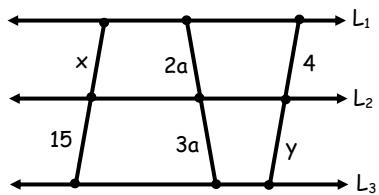
- a) 6
- b) 3
- c) 9
- d) 12
- e) 15



**TAREA DOMICILIARIA N°4**

1. Hallar:  $x + y$ ;  $L_1 \parallel L_2 \parallel L_3$

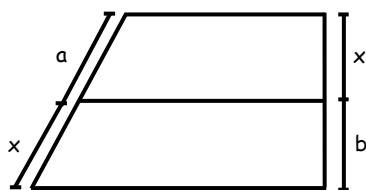
- a) 10
- b) 6
- c) 8
- d) 14
- e) 16



2. Hallar "x".

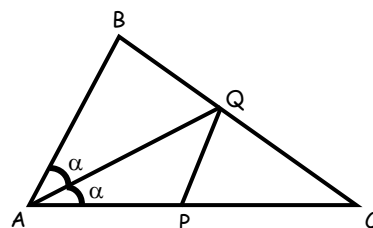
Si :  $a \cdot b = 169$  en el trapecio.

- a) 10
- b) 11
- c) 12
- d) 13
- e) 14



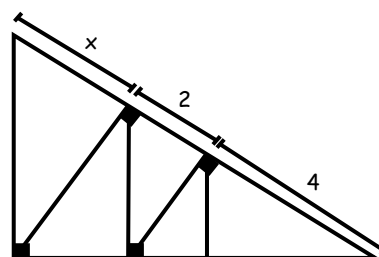
3. Calcular "PQ";  $\overline{PQ} \parallel \overline{AB}$   
 $3BQ = 2QC$  ;  $PC = 18$

- a) 6
- b) 12
- c) 10
- d) 15
- e) 2



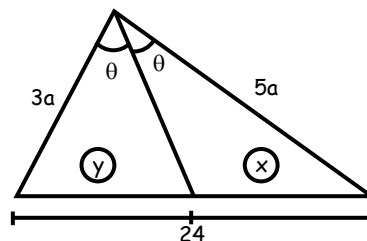
4. Hallar "x"

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5



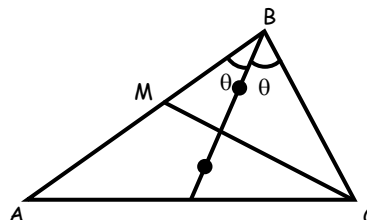
5. Hallar "x - y"

- a) 6
- b) 5
- c) 4
- d) 7
- e) 3



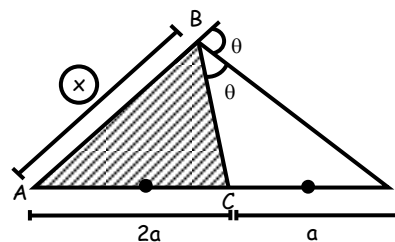
6. Hallar "BC"; MB = 2 ; AM = 6

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5



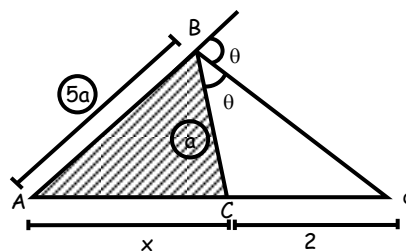
7. Hallar "x"; BC = 6

- a) 6
- b) 12
- c) 18
- d) 24
- e) 30



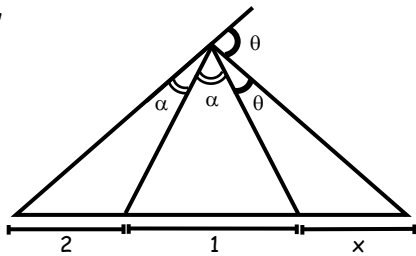
8. Hallar "x"

- a) 10
- b) 8
- c) 6
- d) 4
- e) 2



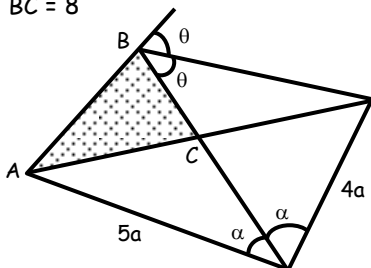
9. Hallar "x"

- a) 10
- b) 6
- c) 4
- d) 3
- e) 5



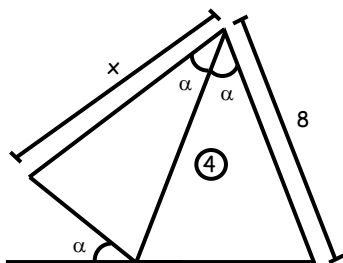
10. Hallar "AB" ; BC = 8

- a) 8
- b) 9
- c) 10
- d) 16
- e) 18



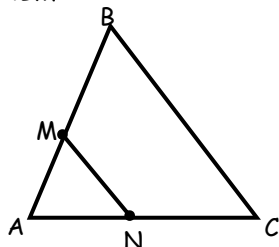
11. Hallar "x"

- a) 1
- b) 2
- c) 3
- d) 4
- e) 12



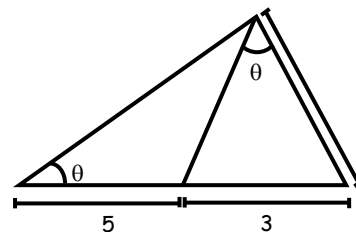
12. Hallar "BC" ;  $\overline{BC} \parallel \overline{MN}$  ;  
MN = 8 ; 3AM = 4BM

- a) 4
- b) 6
- c) 8
- d) 10
- e) 14



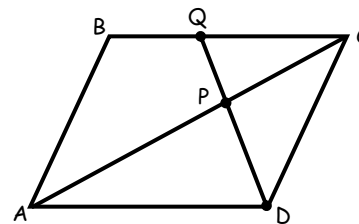
13. Calcular "x"

- a) 8
- b) 2
- c) 5
- d)  $\sqrt{24}$
- e)  $\sqrt{21}$

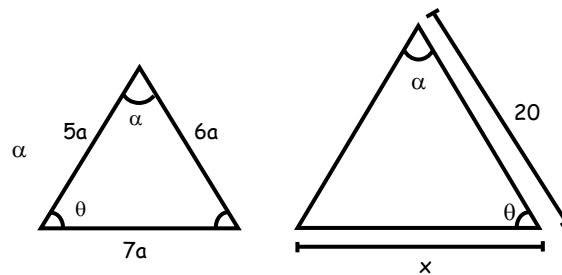


14. En el paralelogramo. Hallar : AP  
PC = 8 y AD = 3BQ

- a) 8
- b) 12
- c) 16
- d) 15
- e) 24



15. Hallar "x"



- a) 25
- b) 28
- c) 24
- d) 16
- e) 40