

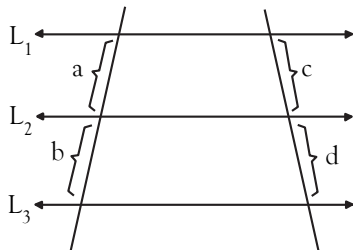


Geometría

PROPORCIONALIDAD - TEOREMA DE TALES

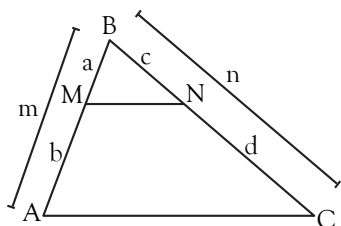
1. TEOREMA DE TALES

A)



$$\text{Si } \overline{L_1} \parallel \overline{L_2} \parallel \overline{L_3} \Rightarrow \frac{a}{b} = \frac{c}{d}$$

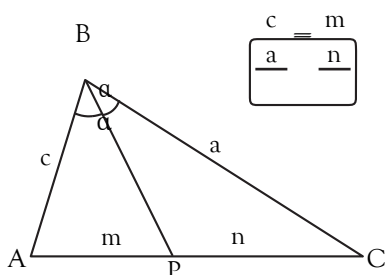
B)



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

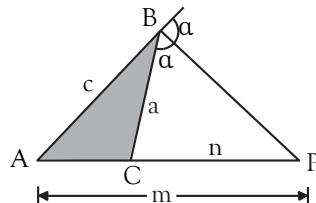
$$\frac{a}{b} = \frac{c}{d} \text{ y } \frac{a}{m} = \frac{c}{n}$$

2. TEOREMA DE LA BISECTRIZ INTERIOR



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

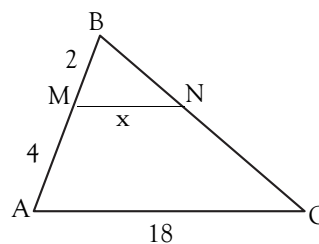
3. TEOREMA DE LA BISECTRIZ EXTERIOR



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

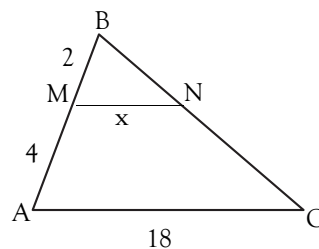
Ejemplos:

1. Si $\overline{MN} \parallel \overline{AC}$, halla MN.



- a) 2 b) 4 c) 6
d) 8 e) 9

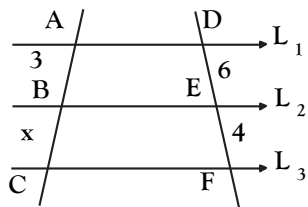
Resolución:



$$\frac{2}{x} = \frac{4}{18} \Rightarrow x=6 \quad \text{Rpta.: c}$$

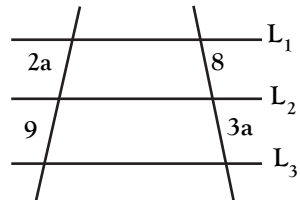
Resolviendo en clase

1 Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$ halla "x".



Resolución:

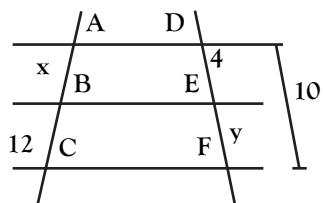
3 Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$ calcula "a".



Resolución:

Rpta:

2 Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$ calcula "x+y".

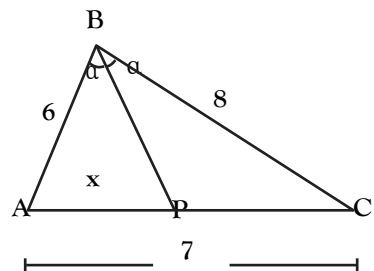


Resolución:

Rpta:

Rpta:

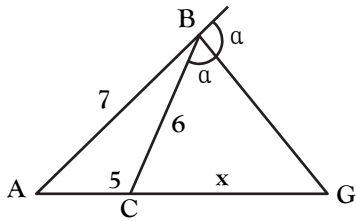
4 Calcula "x".



Resolución:

Rpta:

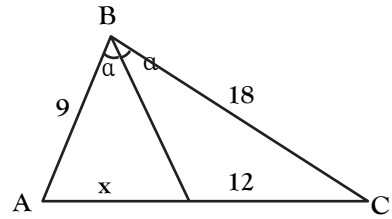
5 En la figura, calcula "x".



Resolución:

Rpta:

6 Calcula "x".

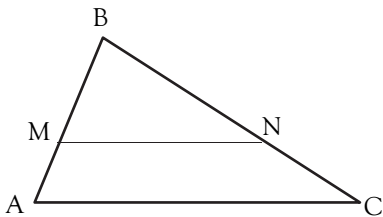


Resolución:

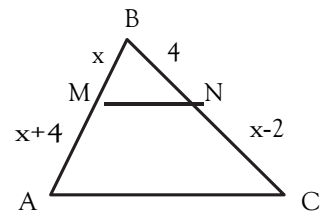
Rpta:

Ahora en tu cuaderno

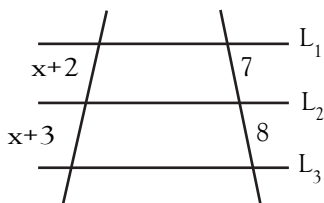
7. Calcula BN si $\overline{MN} \parallel \overline{AC}$, $\frac{BM}{AM} = \frac{5}{4}$ y $NC = 8$



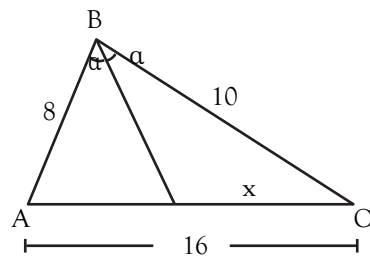
9. Si: $\overline{MN} \parallel \overline{AC}$; calcula "x"



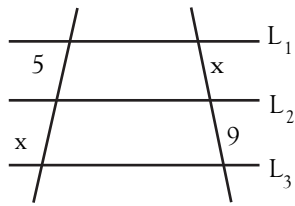
8. Si $\overline{L_1} \parallel \overline{L_2} \parallel \overline{L_3}$, calcula "x"



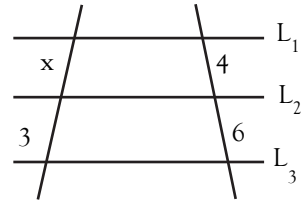
10. Halla "x"



11. Halla "x" si $\vec{L_1} // \vec{L_2} // \vec{L_3}$.

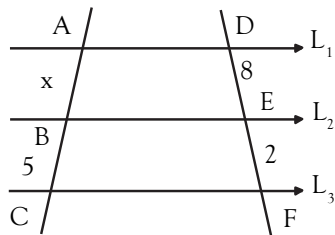


12. Halla "x" si $\vec{L_1} // \vec{L_2} // \vec{L_3}$.



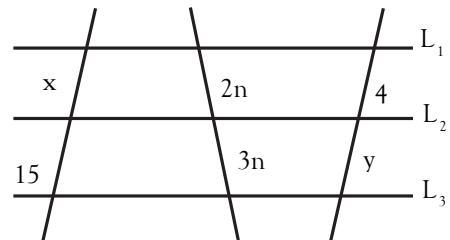
Para reforzar

1. Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$, halla "x".



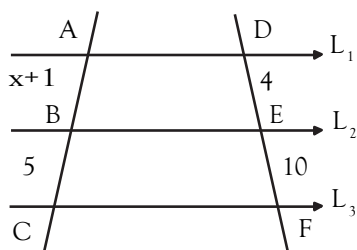
- a) 10 b) 20 c) 25
d) 28 e) 30

3. Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$, calcula "x + y".



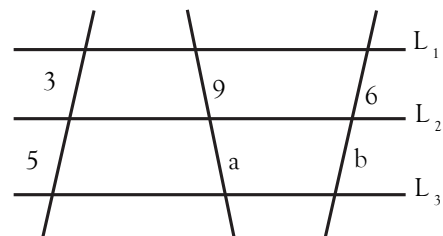
- a) 8 b) 9 c) 10
d) 12 e) 16

2. Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$, halla "x".



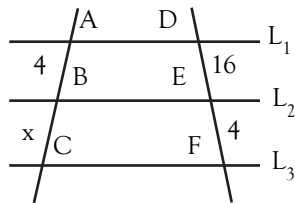
- a) 1 b) 2 c) 3
d) 4 e) 6

4. Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$, calcula "a + b".



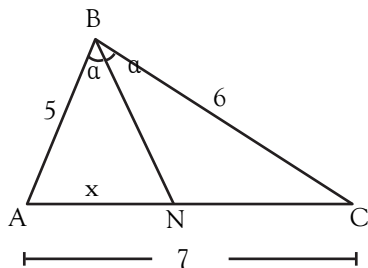
- a) 20 b) 24 c) 25
d) 28 e) 30

5. Si $\vec{L_1} // \vec{L_2} // \vec{L_3}$, calcula "x"



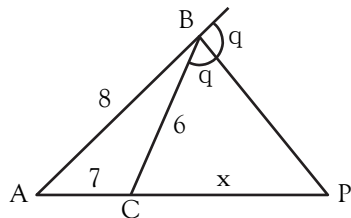
- a) 1 b) 2 c) 3
d) 4 e) 5

6. En la figura, calcula "x".



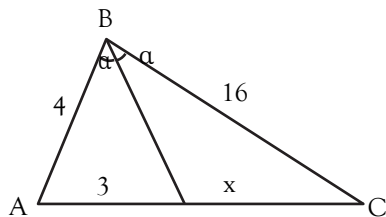
- a) 28/11 b) 30/11 c) 35/11
d) 37/11 e) 43/11

7. En la figura, calcula "x".



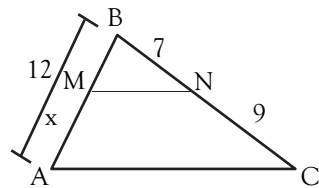
- a) 15 b) 18 c) 20
d) 21 e) 23

8. Calcula "x".



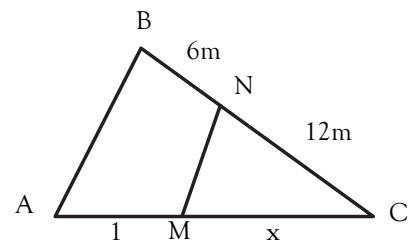
- a) 10 b) 5 c) 8
d) 16 e) 12

9. Si: $\overline{MN} // \overline{AC}$, calcula "x"



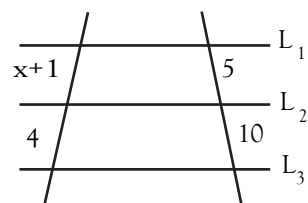
- a) 3/4 b) 1/4 c) 25/4
d) 27/4 e) 13/4

10. Halla "x" si $\overline{MN} // \overline{AC}$.



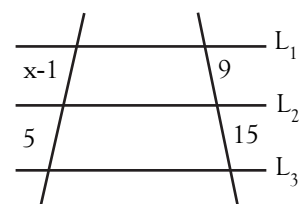
- a) 2 b) 3 c) 4
d) 5 e) 6

11. Halla "x" si $\vec{L_1} // \vec{L_2} // \vec{L_3}$.



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

12. Halla "x" si $\vec{L_1} // \vec{L_2} // \vec{L_3}$.



- a) 0 b) 1 c) 2
d) 3 e) 4