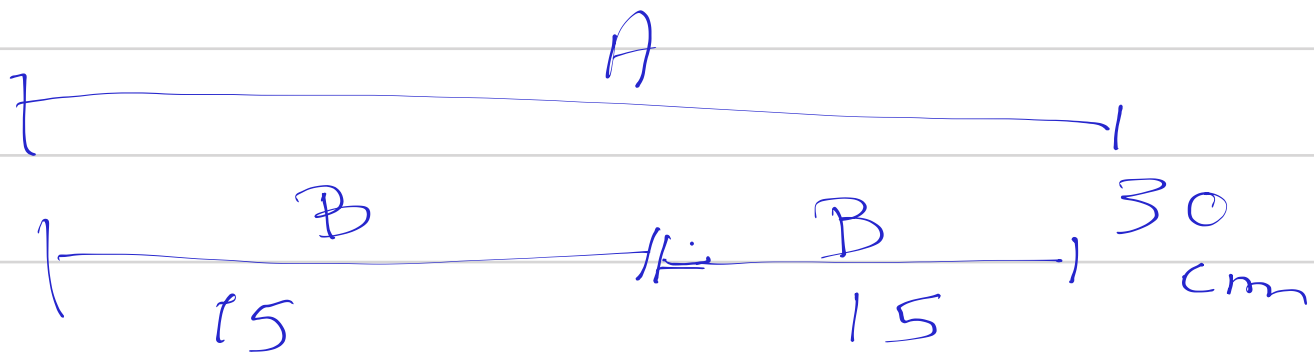
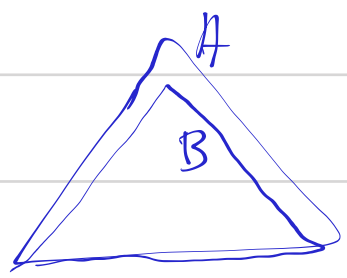
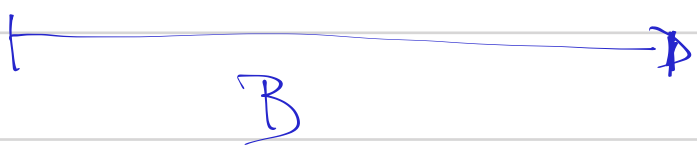
Proportionalités



$A = 2B$



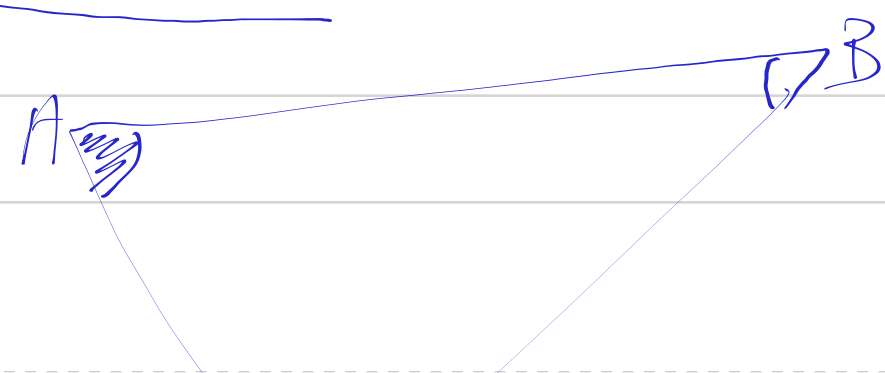
$A = \alpha B$

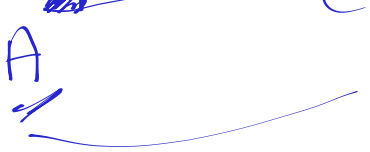


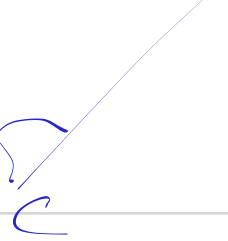
$A = 2B$

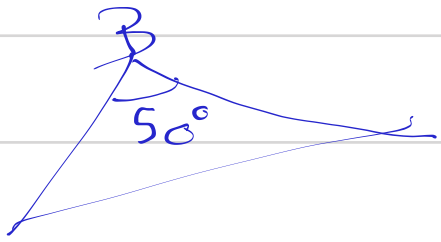
$15 = 5 \times 3$

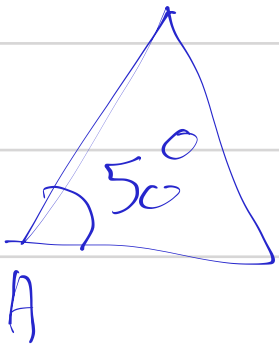
Triangles semblables :





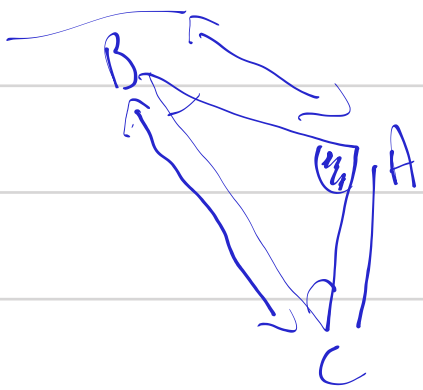






A et B sont homologues

Ex°



On suppose que les triangles sont semblables

$$\frac{AC}{ED} = \frac{AB}{EF} = \frac{BC}{DF}$$

$\cdot EF = ? \cdot AB$

$\cdot ED = ? \cdot AC$

$$\boxed{DF = ? \cdot BC}$$ $\div DF$

$$\frac{DF}{DF} = ? \cdot \frac{BC}{DF}$$

$$1 = ? \cdot \frac{BC}{DF}$$ $\div ?$

$$\frac{1}{?} = \frac{BC}{DF}$$

$$\cdot EF = ? \cdot AB$$

$$\div EF$$

$$\frac{EF}{EF} = ? \cdot \frac{AB}{EF} \qquad 1 = ? \cdot \frac{AB}{EF}$$

$$\div ?$$

$$\frac{1}{?} = \frac{AB}{EF}$$

$$\frac{AB}{EF} = \frac{BC}{DF} = \frac{1}{?}$$

$$1.65 \cdot x = 2,00$$

$$x = \frac{2,00}{1,65}$$

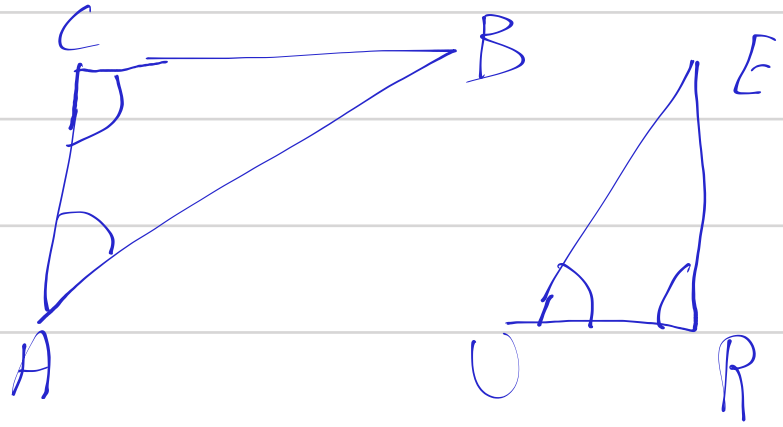
- mm angles $\Rightarrow$ Semblables $\Rightarrow$ les côtés de l'un sont proportionnelles aux côtés de l'autres.

- Si les côtés du triangles proportionnelles

$\Longrightarrow$ les triangles sont semblables

$\Longrightarrow$ m̂m angles

Ex : Les 2 Triangles sont semblables d'après l'énoncé,



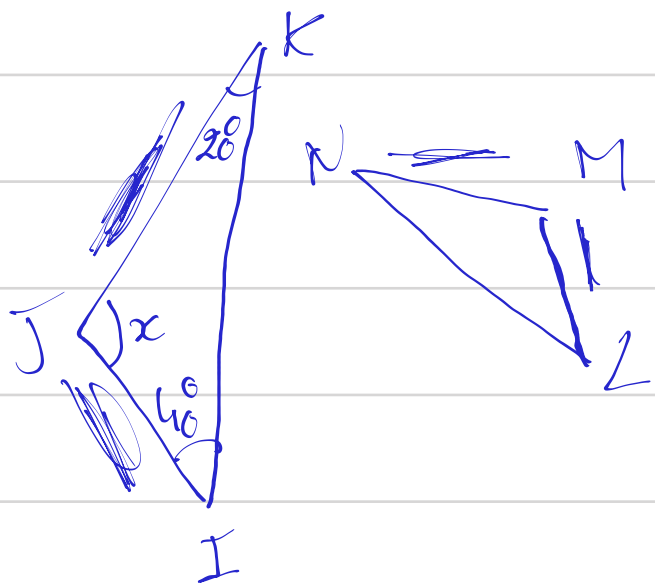
(a) $\widehat{E}$ sommet homologue à $\widehat{B}$ est $\widehat{E}$

(b) Le côté ..... à $\overline{RE}$ est $\overline{CB}$

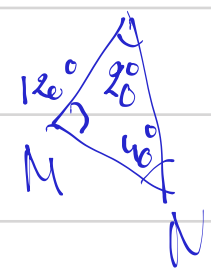
(c) ..... à $\overline{UE}$ est $\overline{AB}$

(d) L'angle homologue à $\widehat{BCA}$ est $\widehat{URE}$

(5)



- $\widehat{M}$ et $\widehat{JK}$ homologue
- JI et MN sont homologue
- Donc KI et NL sont homologues



$40^\circ + 20^\circ + x = 180^\circ$

$60^\circ + x = 180^\circ$

$x = 180^\circ - 60^\circ$

$x = 120^\circ$

(8)