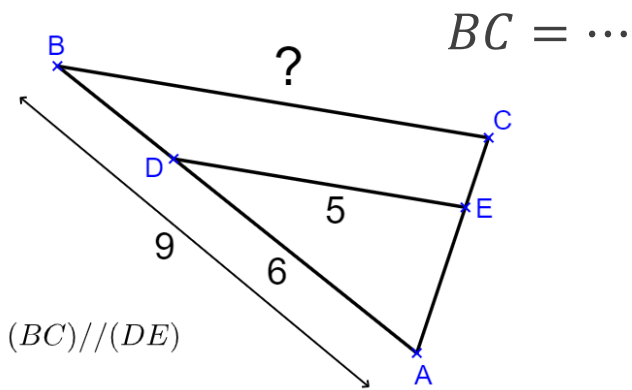
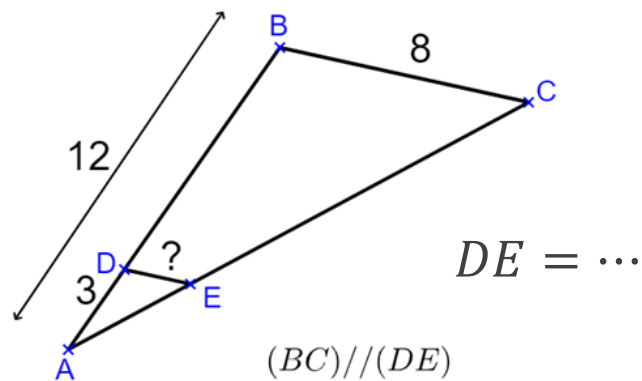




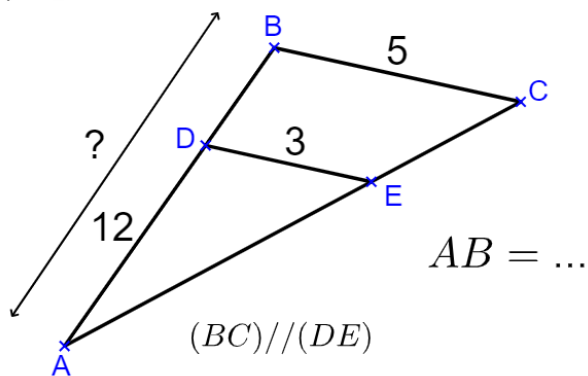
Pythagore et Thalès ★



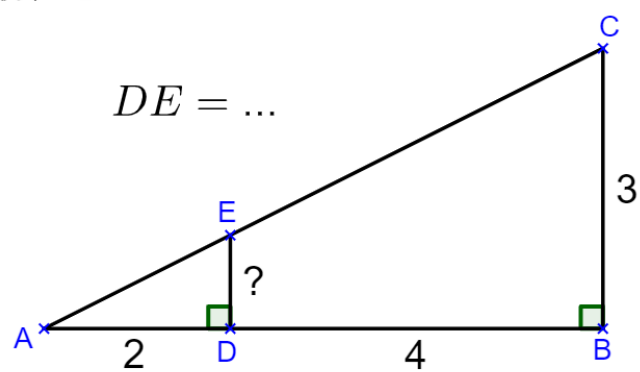
Pythagore et Thalès



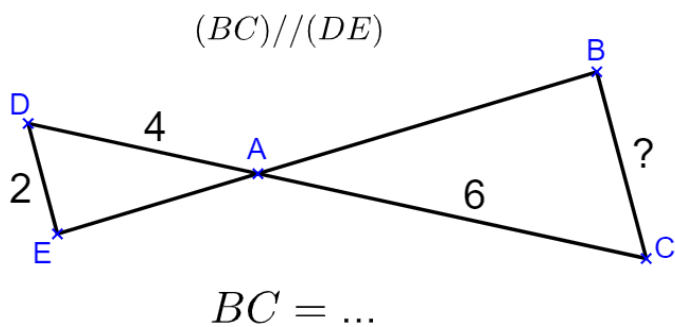
Pythagore et Thalès ★★



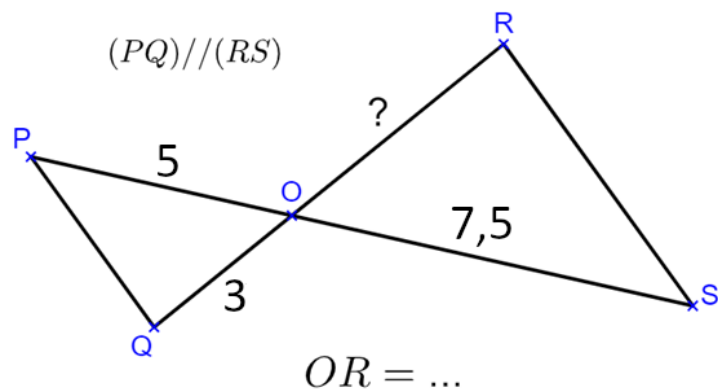
Pythagore et Thalès



Pythagore et Thalès

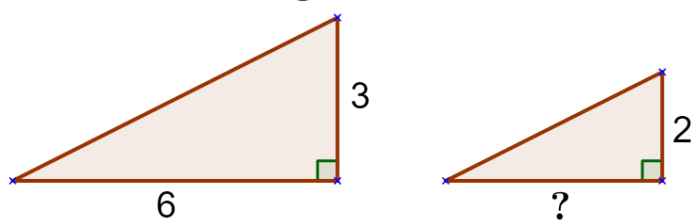


Pythagore et Thalès ★★



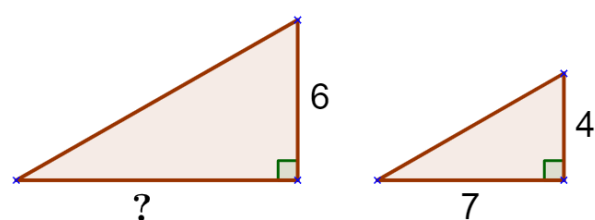
Pythagore et Thalès

Les deux triangles sont semblables



Pythagore et Thalès ★

Les deux triangles sont semblables



$$\frac{3}{12} = \frac{DE}{8}$$

$$DE = \frac{3 \times 8}{12}$$

$$DE = 2$$

$$AB = AD \times 1,5$$

Donc $BC = DE \times 1,5$

$$BC = 5 \times 1,5$$

$$BC = 7,5$$

$$\frac{2}{6} = \frac{DE}{3}$$

$$DE = \frac{2 \times 3}{6}$$

$$DE = 1$$

$$\frac{12}{AB} = \frac{3}{5}$$

$$AB = \frac{12 \times 5}{3}$$

$$AB = 20$$

$$OS = OP \times 1,5$$

Donc $OR = OQ \times 1,5$

$$OR = 3 \times 1,5$$

$$OR = 4,5$$

$$\frac{4}{6} = \frac{2}{BC}$$

$$BC = \frac{2 \times 6}{4}$$

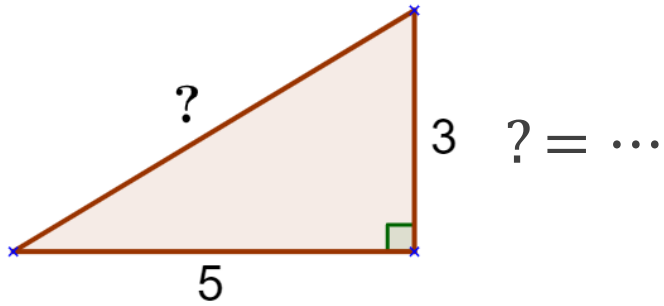
$$BC = 3$$

Le grand triangle est 1,5
plus grand que le petit
donc $? = 1,5 \times 7 = 10,5$

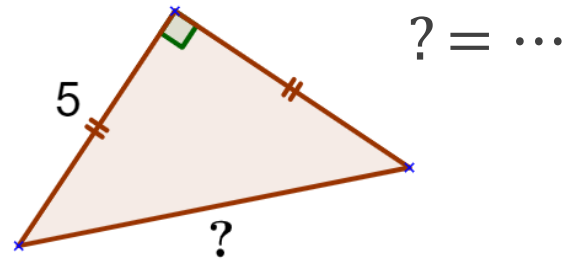
6 est le double de 3
donc ? est le double de 2
 $? = 4$



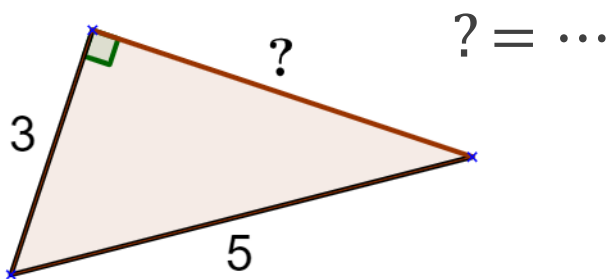
Pythagore et Thalès



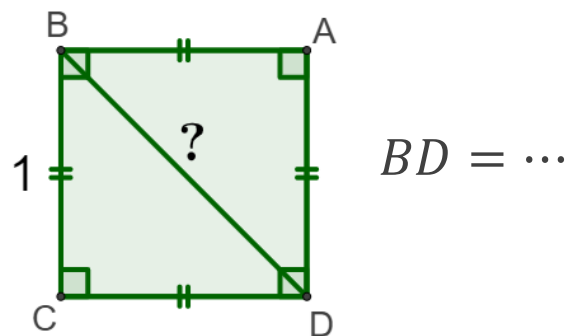
Pythagore et Thalès



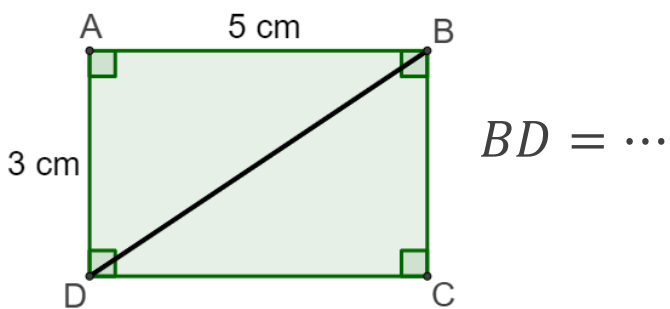
Pythagore et Thalès



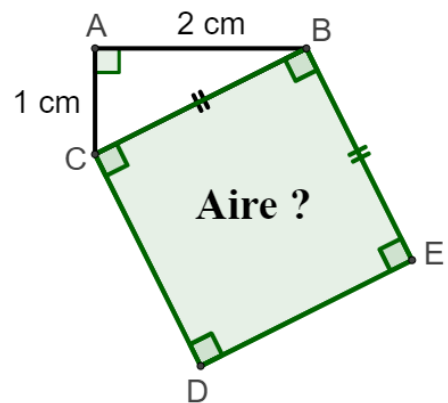
Pythagore et Thalès



Pythagore et Thalès

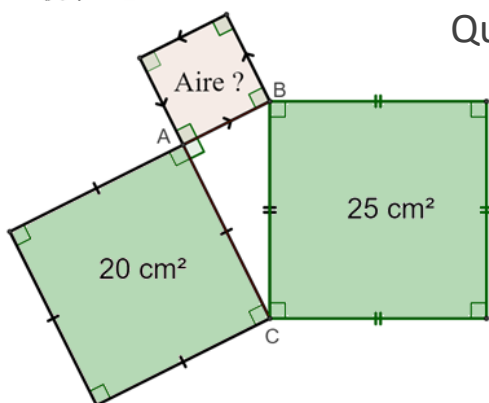


Pythagore et Thalès ★

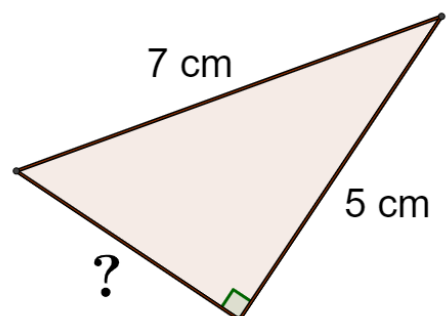


Pythagore et Thalès ★

Quelle est l'aire
du petit
carré ?



Pythagore et Thalès



$$5^2 + 5^2 = 50$$

$$? = \sqrt{50}$$

$$5^2 + 3^2 = 34$$

$$? = \sqrt{34}$$

$$1^2 + 1^2 = BD^2$$

$$BD^2 = 2$$

$$BD = \sqrt{2}$$

$$3^2 + ?^2 = 5^2$$

$$?^2 = 16$$

$$? = 4$$

$$Aire = 1^2 + 2^2$$

$$Aire = 5 \text{ cm}^2$$

$$3^2 + 5^2 = BD^2$$

$$BD^2 = 34$$

$$BD = \sqrt{34}$$

$$5^2 + ?^2 = 7^2$$

$$?^2 = 49 - 25$$

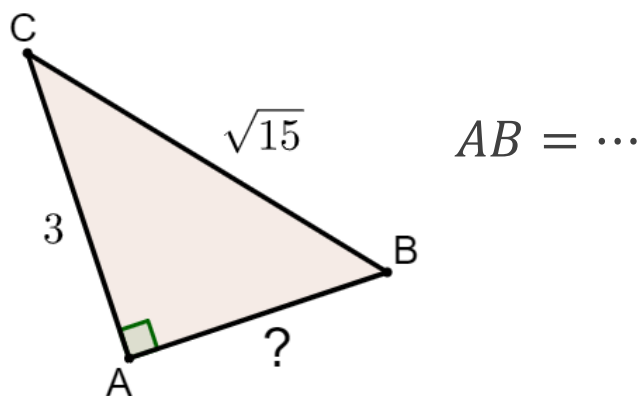
$$? = \sqrt{24}$$

$$Aire = 25 - 20$$

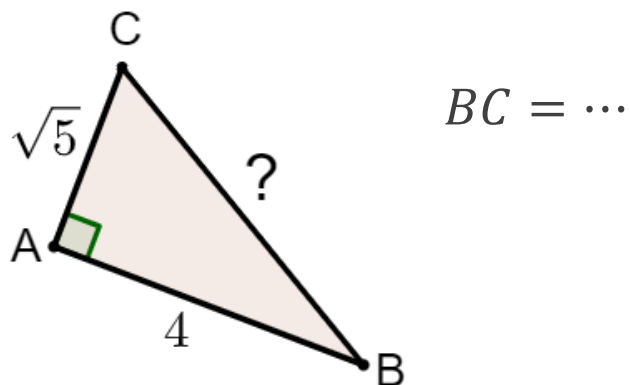
$$Aire = 5 \text{ cm}^2$$



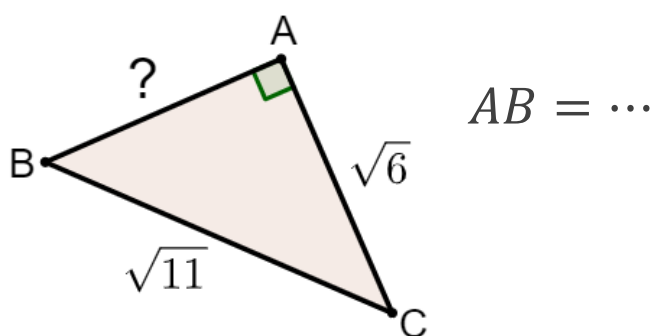
Pythagore et Thalès ★



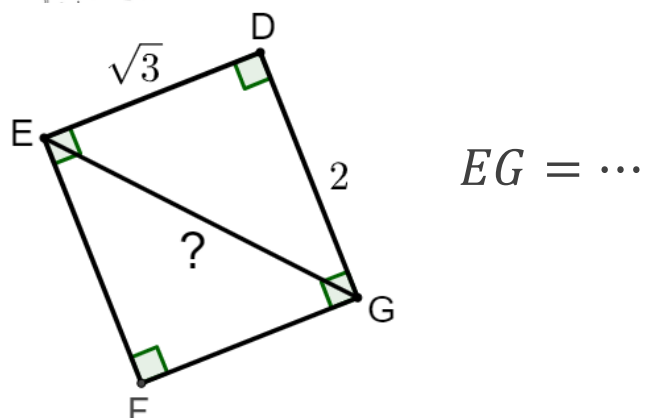
Pythagore et Thalès ★



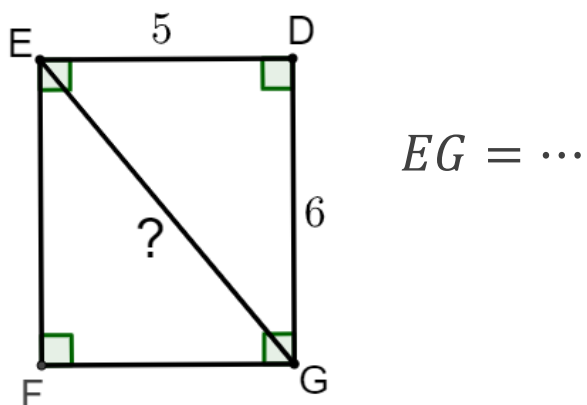
Pythagore et Thalès ★



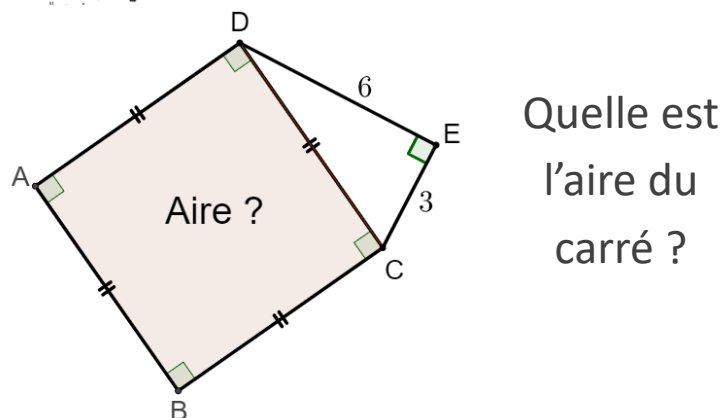
Pythagore et Thalès ★



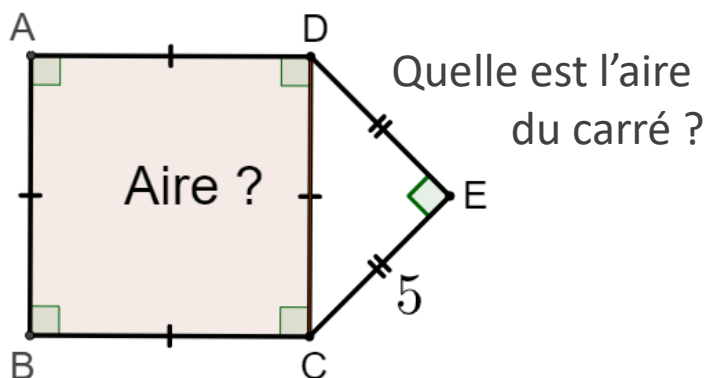
Pythagore et Thalès



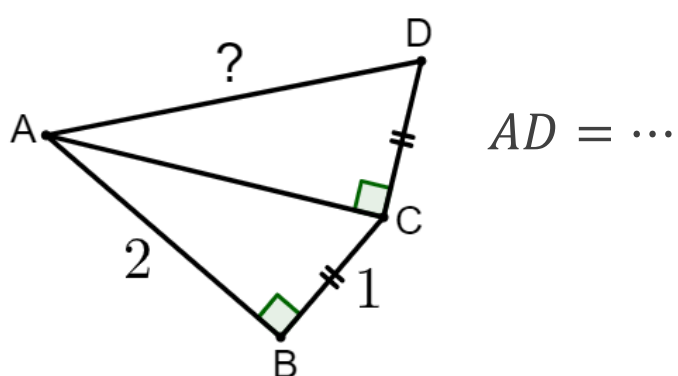
Pythagore et Thalès ★



Pythagore et Thalès ★



Pythagore et Thalès ★★



$$BC^2 = \sqrt{5}^2 + 4^2$$

$$BC^2 = 5 + 16$$

$$BC^2 = 21$$

$$BC = \sqrt{21}$$

$$AB^2 + 3^2 = \sqrt{15}^2$$

$$AB^2 + 9 = 15$$

$$AB^2 = 6$$

$$AB = \sqrt{6}$$

$$EG^2 = 2^2 + \sqrt{3}^2$$

$$EG^2 = 4 + 3$$

$$EG^2 = 7$$

$$EG = \sqrt{7}$$

$$AB^2 + \sqrt{6}^2 = \sqrt{11}^2$$

$$AB^2 + 6 = 11$$

$$AB^2 = 5$$

$$AB = \sqrt{5}$$

$$CD^2 = 3^2 + 6^2$$

$$CD^2 = 9 + 36$$

$$Aire = 45 \text{ cm}^2$$

$$EG^2 = 5^2 + 6^2$$

$$EG^2 = 25 + 36$$

$$EG^2 = 61$$

$$EG = \sqrt{61}$$

$$AC = \sqrt{2^2 + 1^2} = \sqrt{5}$$

$$AD^2 = 1^2 + \sqrt{5}^2 = 6$$

$$AD = \sqrt{6}$$

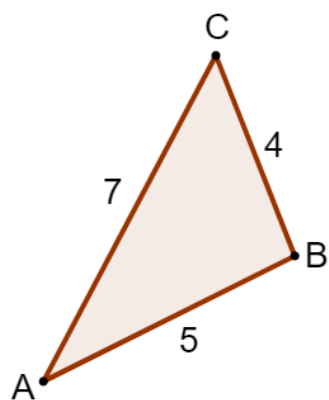
$$CD^2 = 5^2 + 5^2$$

$$CD^2 = 25 + 25$$

$$Aire = 50 \text{ cm}^2$$



Pythagore et Thalès

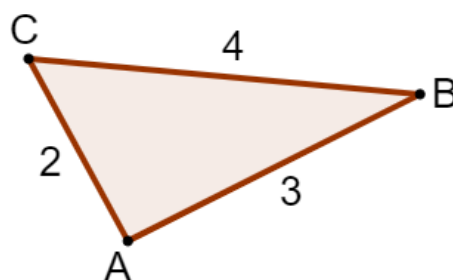


Le triangle ABC est-il rectangle ?

OUI ou NON



Pythagore et Thalès

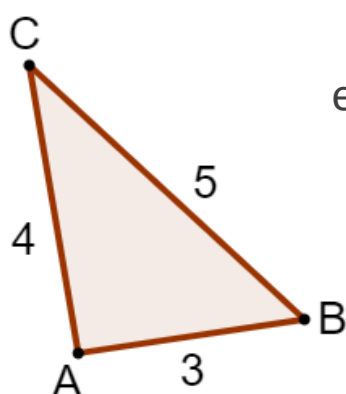


Le triangle ABC est-il rectangle ?

OUI
ou
NON



Pythagore et Thalès

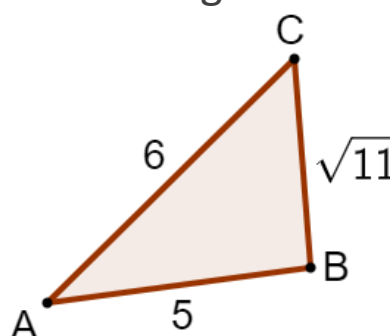


Le triangle ABC est-il rectangle ?

OUI ou NON



Pythagore et Thalès ★



Le triangle ABC est-il rectangle ?

OUI ou NON



Pythagore et Thalès ★

Les côtés d'un triangle mesurent
5 cm ; 6 cm et 8 cm.
Ce triangle est-il rectangle ?

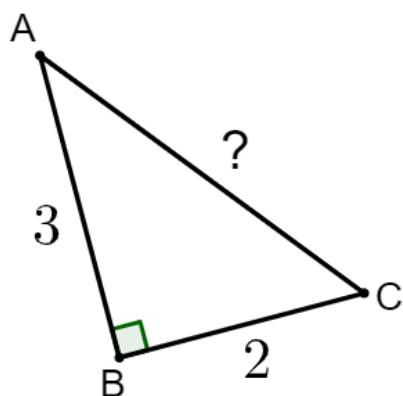


Pythagore et Thalès ★

Les côtés d'un triangle mesurent
9 cm ; 4 cm et 10 cm.
Ce triangle est-il rectangle ?



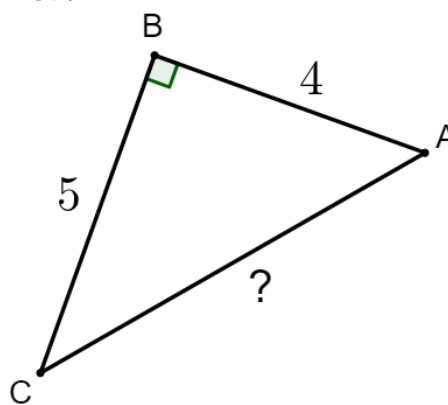
Pythagore et Thalès



$AC = \dots$



Pythagore et Thalès



$AC = \dots$

$$BC^2 = 16$$

$$AC^2 + AB^2 = 4 + 9 = 13$$

Réponse : NON

$$AC^2 = 49$$

$$AB^2 + BC^2 = 25 + 16 = 41$$

Réponse : NON

$$AC^2 = 36$$

$$AB^2 + BC^2 = 25 + 11 = 36$$

Réponse : OUI

$$BC^2 = 25$$

$$AB^2 + AC^2 = 9 + 16 = 25$$

Réponse : OUI

$$10^2 = 100$$

$$9^2 + 4^2 = 81 + 16 = 97$$

Réponse : NON

$$8^2 = 64$$

$$5^2 + 6^2 = 25 + 36 = 61$$

Réponse : NON

$$AC^2 = 5^2 + 4^2$$

$$AC^2 = 25 + 16$$

$$AC^2 = 41$$

$$AC = \sqrt{41}$$

$$AC^2 = 2^2 + 3^2$$

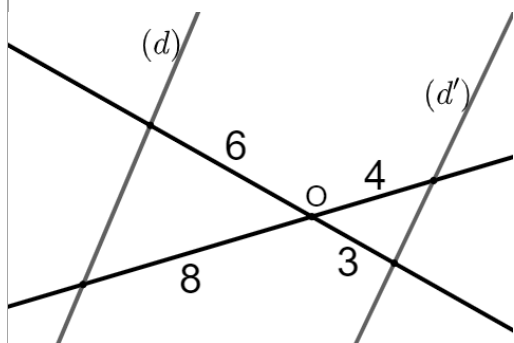
$$AC^2 = 4 + 9$$

$$AC^2 = 13$$

$$AC = \sqrt{13}$$



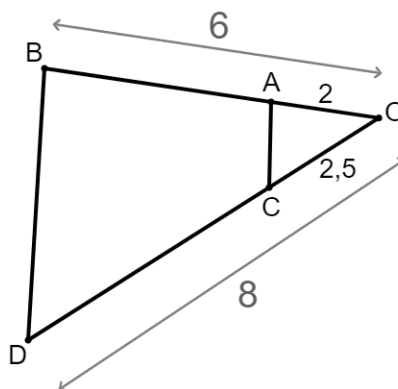
Pythagore et Thalès ★



Les droites
(d) et (d')
sont-elles
parallèles ?



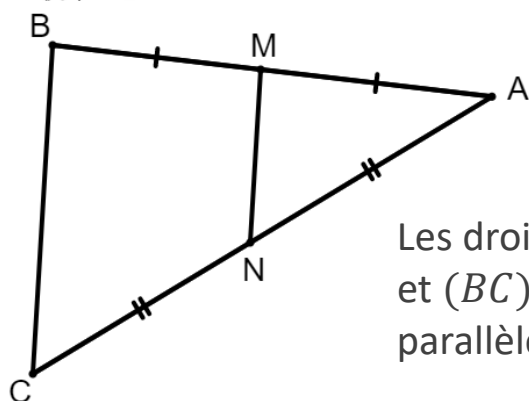
Pythagore et Thalès ★



Les droites
(AC) et (BD)
sont-elles
parallèles ?



Pythagore et Thalès ★

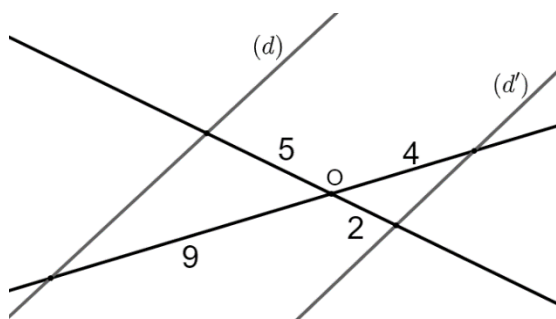


Les droites (MN)
et (BC) sont-elles
parallèles ?

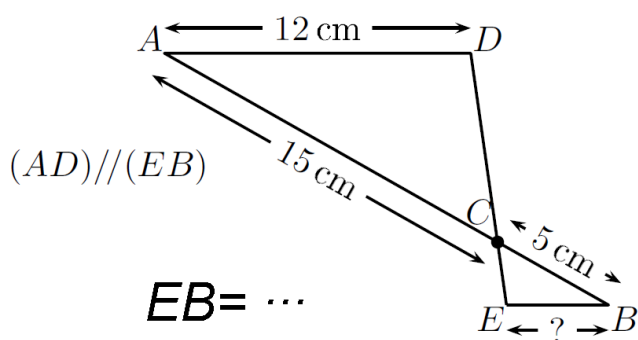


Pythagore et Thalès ★★

Les droites (d) et (d') sont-elles
parallèles ?



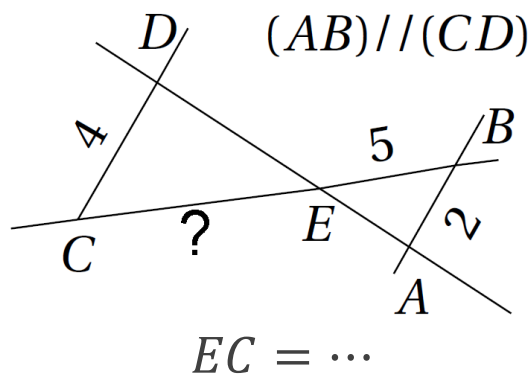
Pythagore et Thalès



$EB = \dots$



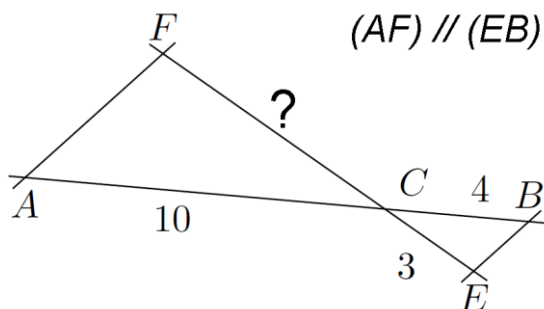
Pythagore et Thalès



$EC = \dots$



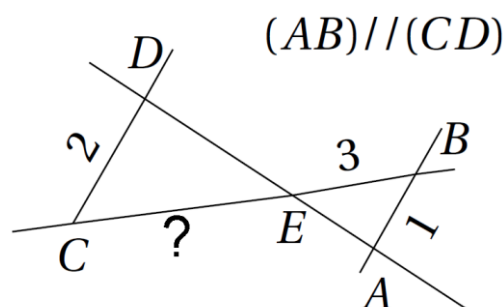
Pythagore et Thalès ★



$CF = \dots$



Pythagore et Thalès



$EC = \dots$

6 est le triple de 2

Mais 8 n'est pas le triple de 2,5

Réponse : NON

$$\frac{3}{6} = 0,5$$

$$\frac{4}{8} = 0,5$$

Réponse : OUI

$$\frac{2}{5} \neq \frac{4}{9}$$

Réponse : NON

$$\frac{AM}{AB} = \frac{1}{2}$$

$$\frac{AN}{AC} = \frac{1}{2}$$

Réponse : OUI

$$CD = AB \times 2$$

$$\text{Donc } CE = EB \times 2$$

$$CE = 5 \times 2$$

$$CE = 10$$

$$CB = CA \div 3$$

$$\text{Donc } EB = AD \div 3$$

$$EB = 12 \div 3$$

$$EB = 4$$

$$CD = AB \times 2$$

$$\text{Donc } CE = EB \times 2$$

$$CE = 3 \times 2$$

$$CE = 6$$

$$CA = CB \times 2,5$$

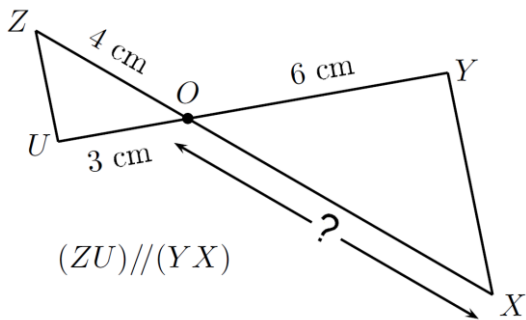
$$\text{Donc } CF = CE \times 2,5$$

$$CF = 3 \times 2,5$$

$$CF = 7,5$$



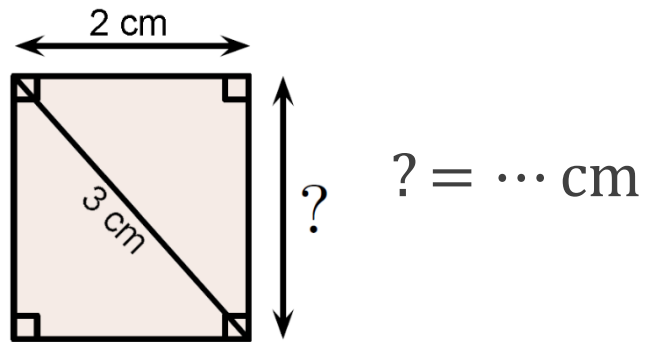
Pythagore et Thalès



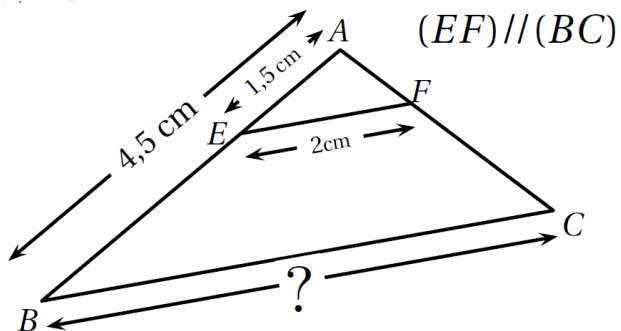
$$OX = \dots$$



Pythagore et Thalès



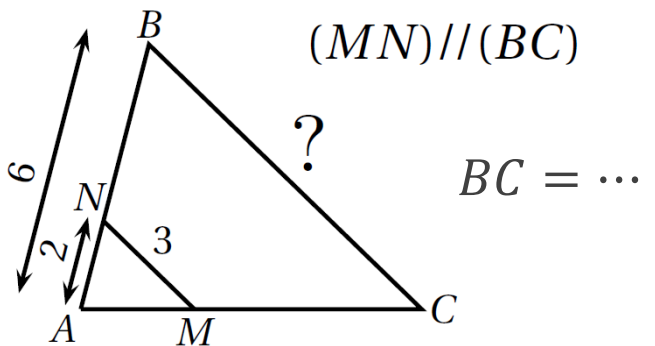
Pythagore et Thalès ★



$$BC = \dots$$



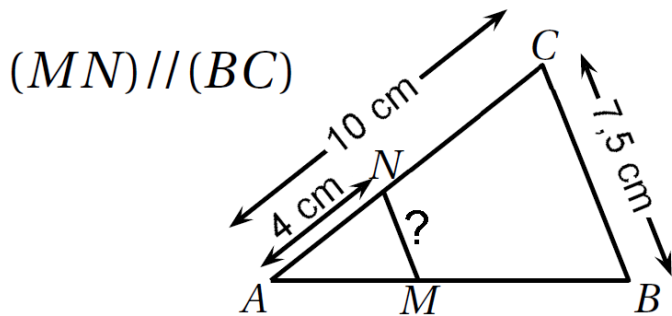
Pythagore et Thalès ★



$$BC = \dots$$



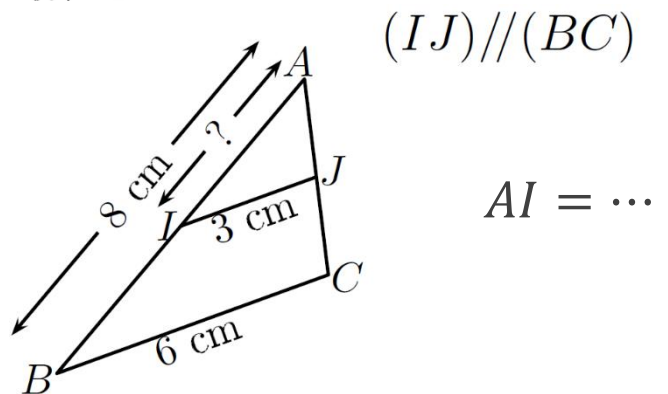
Pythagore et Thalès ★★



$$MN = \dots$$



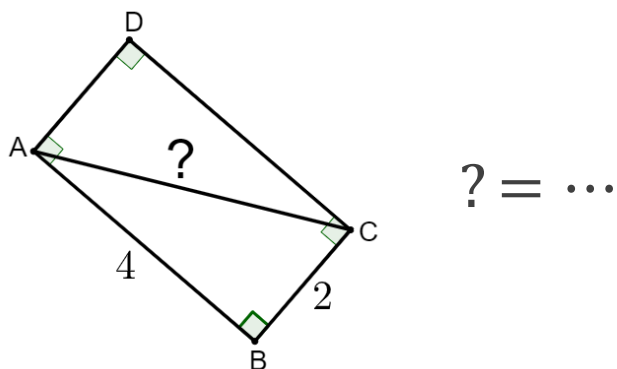
Pythagore et Thalès ★



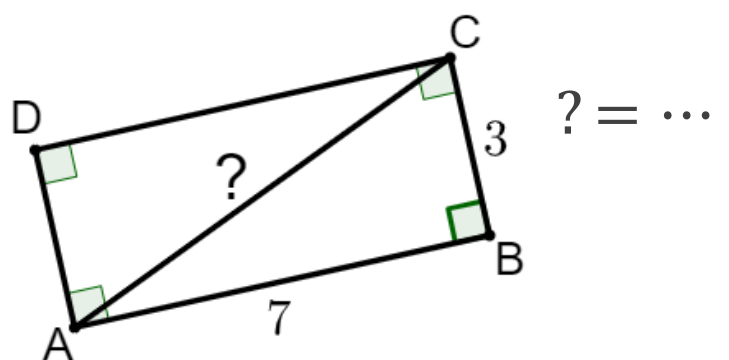
$$AI = \dots$$



Pythagore et Thalès



Pythagore et Thalès



$$2^2 + ?^2 = 3^2$$

$$?^2 = 9 - 4$$

$$? = \sqrt{5}$$

$$OY = OU \times 2$$

$$\text{Donc } OX = OZ \times 2$$

$$OX = 4 \times 2$$

$$OX = 8$$

$$AB = AN \times 3$$

$$\text{Donc } BC = MN \times 3$$

$$BC = 3 \times 3$$

$$BC = 9$$

$$AB = AE \times 3$$

$$\text{Donc } BC = EF \times 3$$

$$BC = 2 \times 3$$

$$BC = 6$$

$$IJ = BC \div 2$$

$$\text{Donc } AI = AB \div 2$$

$$AI = 8 \div 2$$

$$AI = 4$$

$$AN = AC \div 2,5$$

$$\text{Donc } MN = BC \div 2,5$$

$$MN = 7,5 \div 2,5$$

$$MN = 3$$

$$AC^2 = 7^2 + 3^2$$

$$AC^2 = 49 + 9$$

$$AC^2 = 58$$

$$AC = \sqrt{58}$$

$$AC^2 = 4^2 + 2^2$$

$$AC^2 = 16 + 4$$

$$AC^2 = 20$$

$$AC = \sqrt{20}$$

