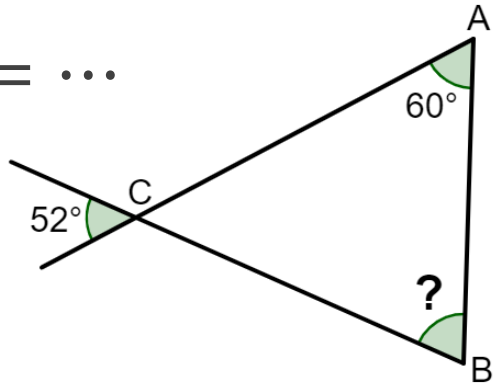
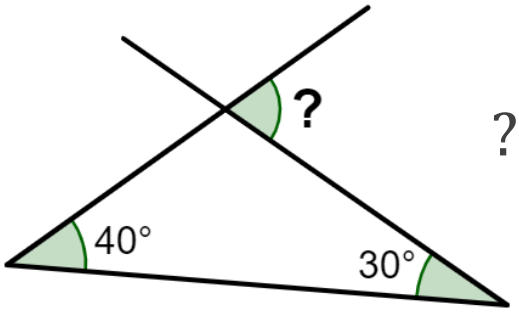
Géométrie (angles et trigo) ✶

$? = \cdots$

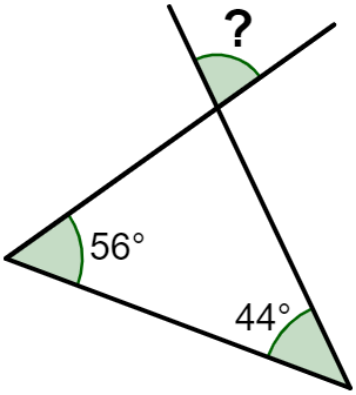


Géométrie (angles et trigo) ✶



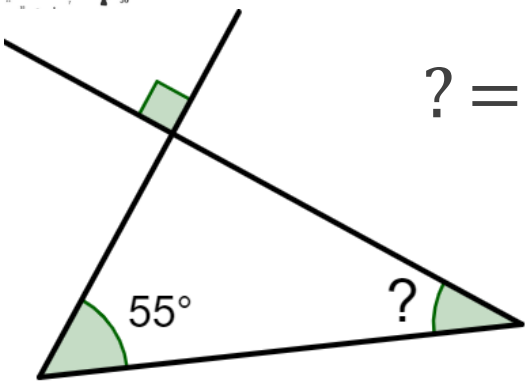
$? = \cdots$

Géométrie (angles et trigo) ✶



$? = \cdots$

Géométrie (angles et trigo) ✶

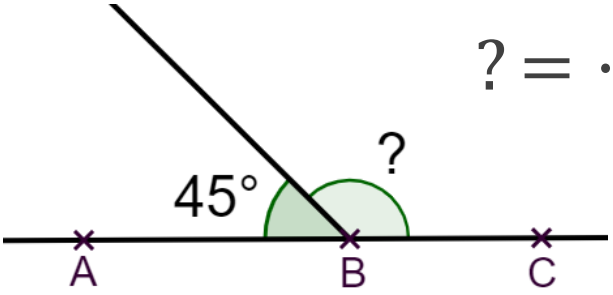


$? = \cdots$

Géométrie (angles et trigo)

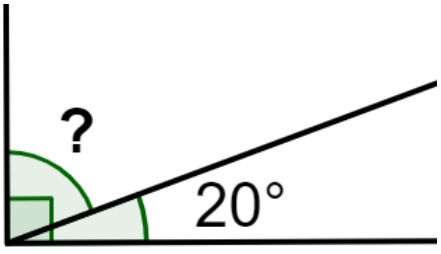
Les points A, B et C sont alignés.

$? = \cdots$



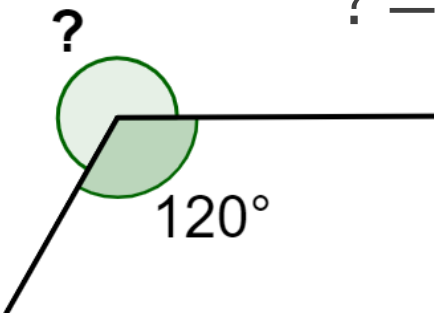
Géométrie (angles et trigo)

$? = \cdots$



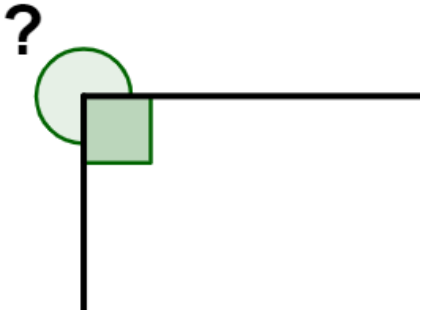
Géométrie (angles et trigo)

$? = \cdots$



Géométrie (angles et trigo)

$? = \cdots$



$180° - (40° + 30°) = 110°$

Donc $? = 180° - 110° = 70°$

$\widehat{ACB} = 52°$

$\widehat{ACB} = 180° - (52° + 60°)$

$\widehat{ACB} = 68°$

$180° - (55° + 90°) = 35°$

Donc $? = 35°$

$180° - (56° + 44°) = 80°$

Donc $? = 80°$

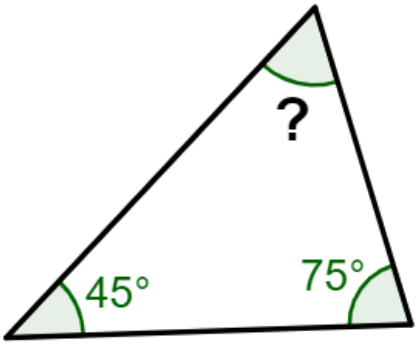
$? = 90° - 20° = 70°$

$? = 180° - 45° = 135°$

$? = 360° - 90° = 270°$

$? = 360° - 120° = 240°$

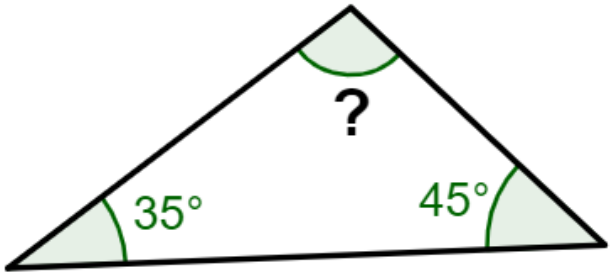
Géométrie (angles et trigo)



$? = \cdots$

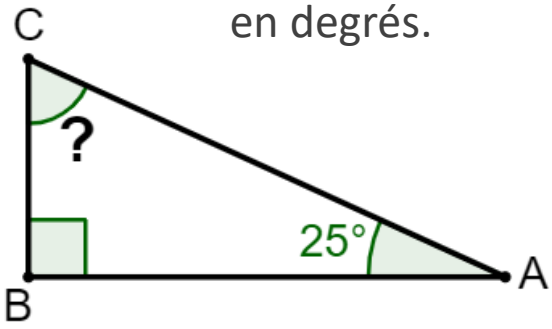
Géométrie (angles et trigo)

$? = \cdots$



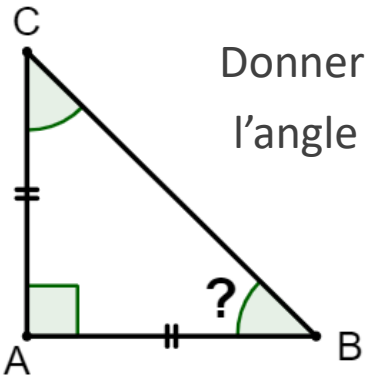
Géométrie (angles et trigo)

Donner une mesure de l'angle $\widehat{ACB}$ en degrés.



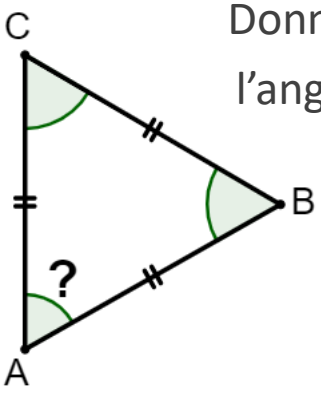
Géométrie (angles et trigo)

Donner une mesure de l'angle $\widehat{ABC}$ en degrés.



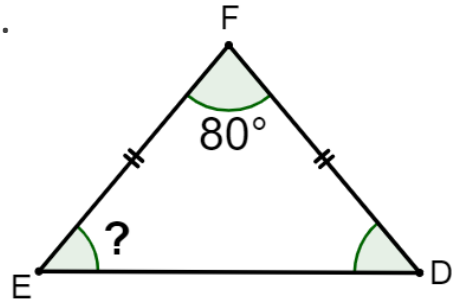
Géométrie (angles et trigo)

Donner une mesure de l'angle $\widehat{BAC}$ en degrés.



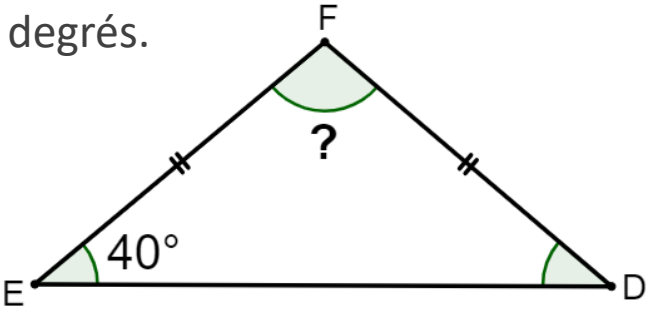
Géométrie (angles et trigo) ✶

Donner une mesure de l'angle $\widehat{FEC}$ en degrés.



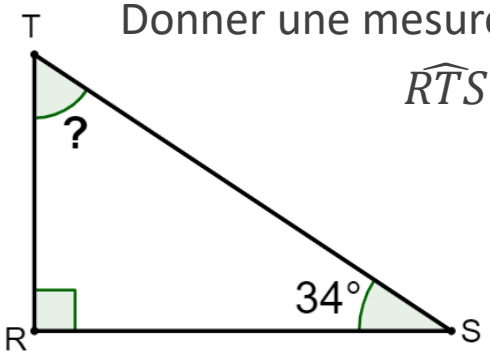
Géométrie (angles et trigo) ✶

Donner une mesure de l'angle $\widehat{DFE}$ en degrés.



Géométrie (angles et trigo) ✶

Donner une mesure de l'angle $\widehat{RTS}$ en degrés.



$$? = 180 - (35° + 45°)$$

$$? = 100°$$

$$? = 180 - (45° + 75°)$$

$$? = 60°$$

$$? = 90° \div 2 = 45°$$

A retenir : Les angles aigus d'un triangle rectangle isocèle mesurent $45°$.

A retenir : Les angles aigus d'un triangle rectangle sont complémentaires.

$$? = 90° - 25° = 65°$$

$$? = (180° - 80°) \div 2 = 50°$$

$$? = 180° \div 3 = 60°$$

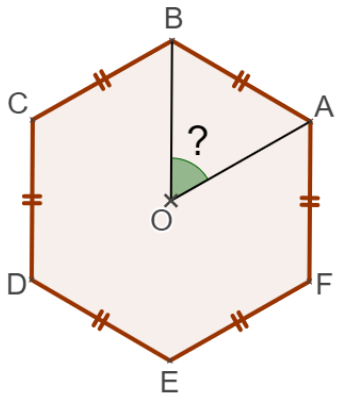
A retenir : les angles d'un triangle équilatéral mesurent $60°$.

A retenir : Les angles aigus d'un triangle rectangle sont complémentaires.

$$? = 90° - 34° = 56°$$

$$? = 180° - 2 \times 40° = 100°$$

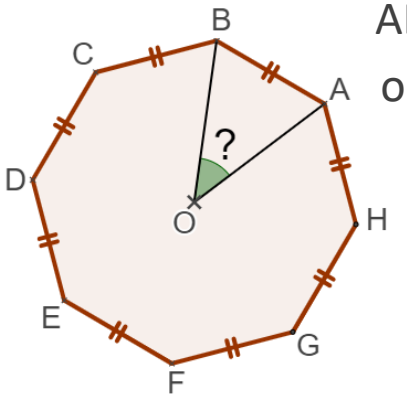
Géométrie (angles et trigo)



ABCDEF est un hexagone régulier de centre O.

$? = \cdots$

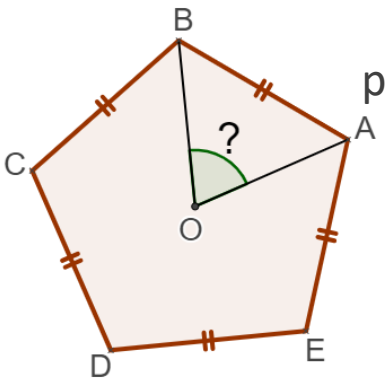
Géométrie (angles et trigo) ✶



ABCDEFGH est un octogone régulier de centre O.

$? = \cdots$

Géométrie (angles et trigo) ✶



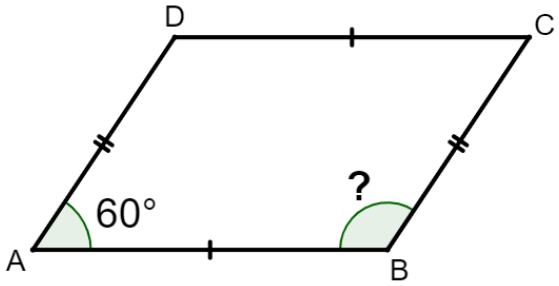
ABCDE est un pentagone régulier de centre O.

$? = \cdots$

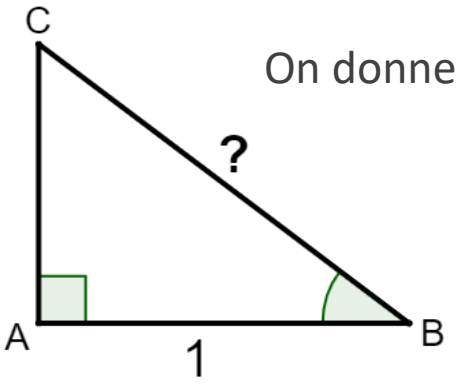
Géométrie (angles et trigo)

ABCD est un parallélogramme.

$? = \cdots$



Géométrie (angles et trigo) ✶✶

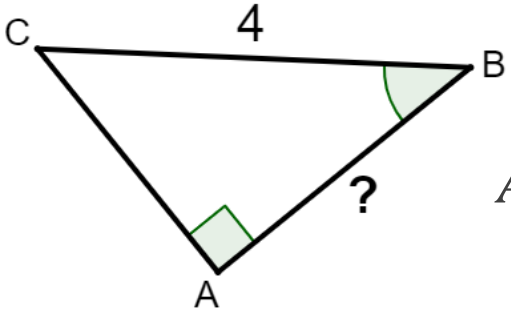


On donne $\cos(\hat{B}) = \frac{4}{5}$

$BC = \cdots$

Géométrie (angles et trigo) ✶✶

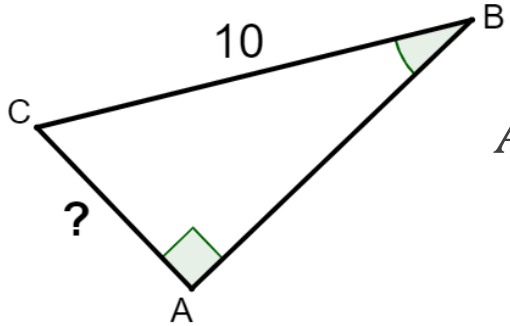
On donne $\cos(\hat{B}) = \frac{3}{4}$



$AB = \cdots$

Géométrie (angles et trigo) ✶✶

On donne $\sin(\hat{B}) = 0{,}5$

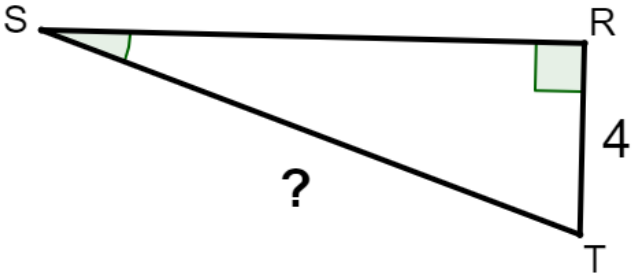


$AC = \cdots$

Géométrie (angles et trigo) ✶✶

On donne $\sin(\hat{S}) = \frac{1}{3}$

$ST = \cdots$



$$? = 360° \div 8 = 45°$$

$$? = 360° \div 6 = 60°$$

$$? = 180° - 60° = 120°$$

A retenir : deux angles consécutifs d'un parallélogramme sont supplémentaires.

$$? = 360° \div 5 = 72°$$

$$\cos(\hat{B}) = \frac{BA}{BC}$$

$$\frac{BA}{4} = \frac{3}{4}$$

$$AB = 3$$

$$\cos(\hat{B}) = \frac{BA}{BC}$$

$$\frac{1}{BC} = \frac{4}{5}$$

$$BC = \frac{5}{4}$$

$$\sin(\hat{S}) = \frac{RT}{ST}$$

$$\frac{4}{ST} = \frac{1}{3}$$

$$ST = 12$$

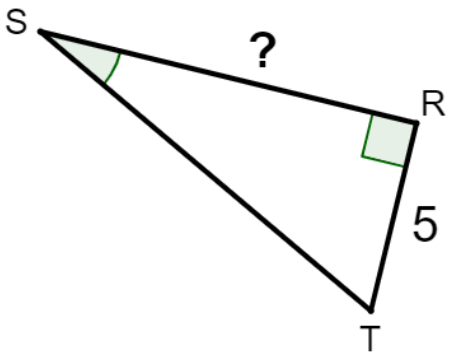
$$\sin(\hat{B}) = \frac{AC}{BC}$$

$$\frac{AC}{10} = 0{,}5$$

$$AC = 5$$

Géométrie (angles et trigo) ✶✶

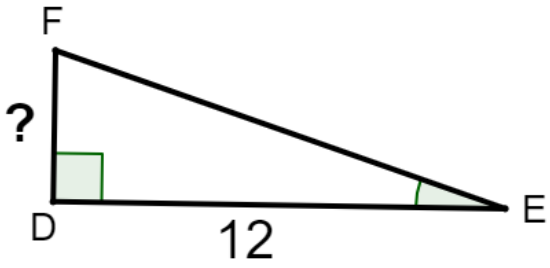
On donne $\tan(\hat{S}) = 0{,}5$



$RS = \cdots$

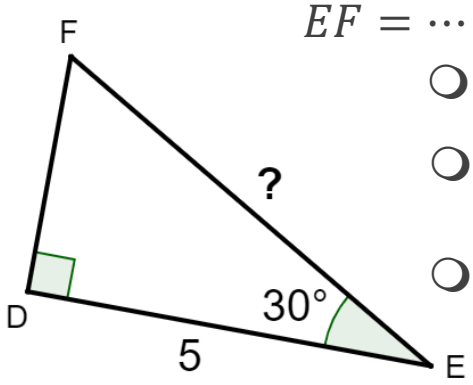
Géométrie (angles et trigo) ✶✶

On donne $\tan(\hat{E}) = \frac{1}{3}$ $\quad DF = \cdots$



Géométrie (angles et trigo) ✶✶

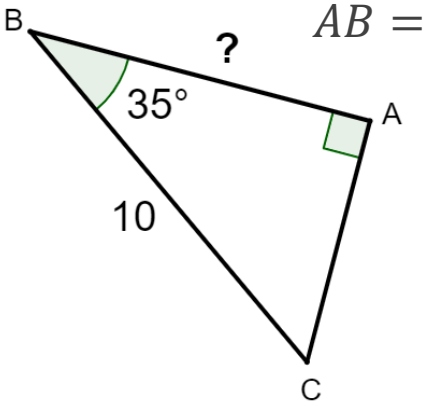
$EF = \cdots$



- ❍ $5 \times \cos(30°)$
- ❍ $\dfrac{5}{\cos(30°)}$
- ❍ $\dfrac{\cos(30°)}{5}$

Géométrie (angles et trigo) ✶✶

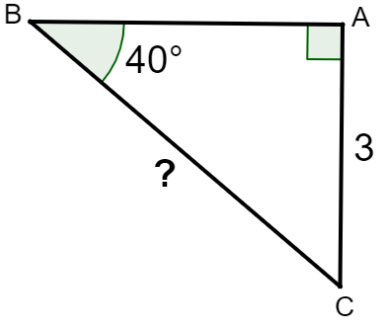
$AB = \cdots$



- ❍ $10 \times \cos(35°)$
- ❍ $\dfrac{10}{\cos(35°)}$
- ❍ $10 \times \sin(35°)$

Géométrie (angles et trigo) ✶✶

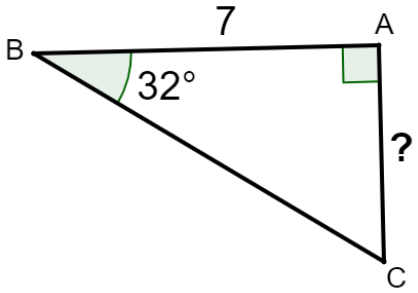
$BC = \cdots$



- ❍ $3 \times \cos(40°)$
- ❍ $\dfrac{3}{\sin(40°)}$
- ❍ $3 \times \sin(40°)$

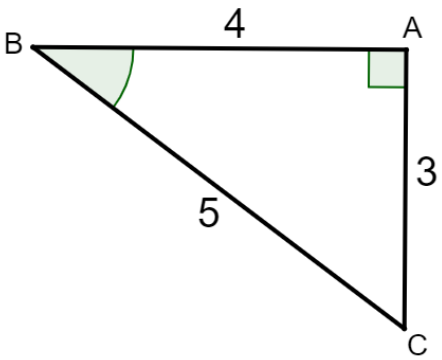
Géométrie (angles et trigo) ✶✶

$AC = \cdots$



- ❍ $7 \times \cos(32°)$
- ❍ $7 \times \tan(32°)$
- ❍ $7 \times \sin(32°)$

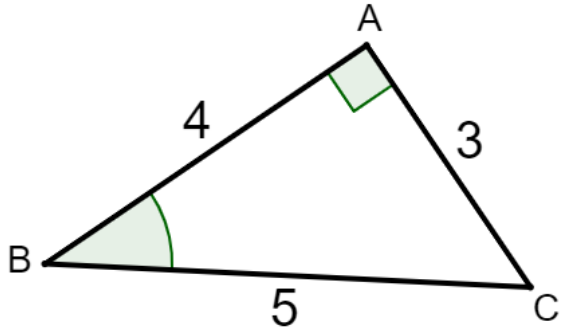
Géométrie (angles et trigo)



$\cos(\hat{B}) = \cdots$

Géométrie (angles et trigo)

$\sin(\hat{B}) = \cdots$



$$\tan(\hat{E}) = \frac{DF}{DE}$$

$$\frac{DF}{12} = \frac{1}{3}$$

$$DF = 4$$

$$\tan(\hat{S}) = \frac{RT}{RS}$$

$$\frac{5}{RS} = 0{,}5$$

$$RS = 10$$

$$\cos(\hat{B}) = \frac{AB}{BC}$$

$$\cos(35°) = \frac{AB}{10}$$

$$\text{AB} = 10 \times \cos(35°)$$

$$\cos(\hat{E}) = \frac{ED}{EF}$$

$$\cos(30°) = \frac{5}{EF}$$

$$\text{EF} = \frac{5}{\cos(30°)}$$

$$\tan(\hat{B}) = \frac{AC}{BA}$$

$$\tan(32°) = \frac{AC}{7}$$

$$\text{AC} = 7 \times \tan(32°)$$

$$\sin(\hat{B}) = \frac{AC}{BC}$$

$$\sin(40°) = \frac{3}{BC}$$

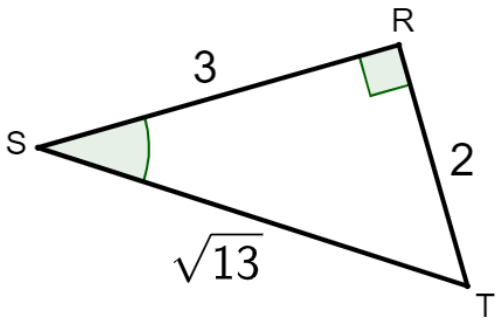
$$\text{BC} = \frac{3}{\sin(40°)}$$

$$\sin(\hat{B}) = \frac{3}{5}$$

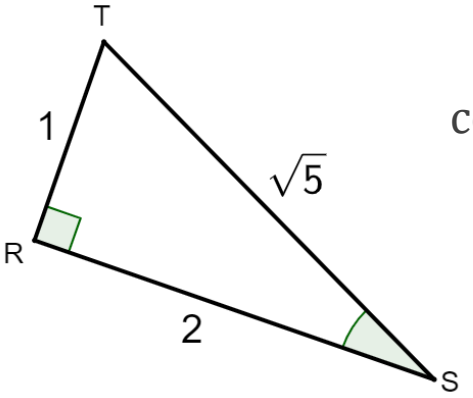
$$\cos(\hat{B}) = \frac{4}{5}$$

Géométrie (angles et trigo)

$\tan(\hat{S}) = \cdots$



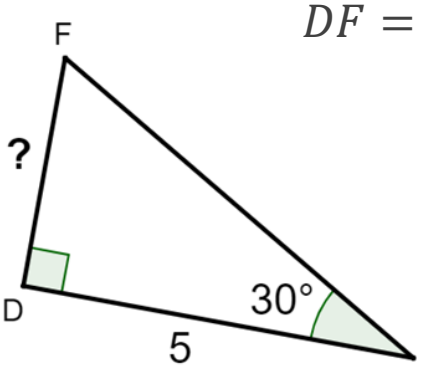
Géométrie (angles et trigo)



$\cos(\hat{S}) = \cdots$

Géométrie (angles et trigo) ✶✶

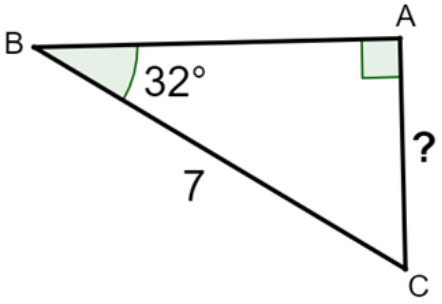
$DF = \cdots$



- ❍ $5 \times \cos(30°)$
- ❍ $5 \times \sin(30°)$
- ❍ $5 \times \tan(30°)$

Géométrie (angles et trigo) ✶✶

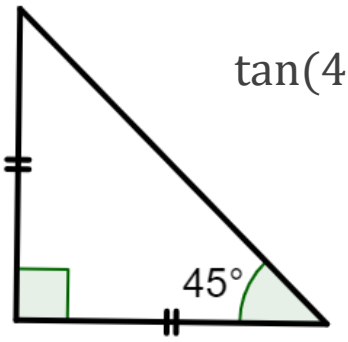
$AC = \cdots$



- ❍ $7 \times \cos(32°)$
- ❍ $7 \times \sin(32°)$
- ❍ $7 \times \tan(32°)$

Géométrie (angles et trigo) ✶

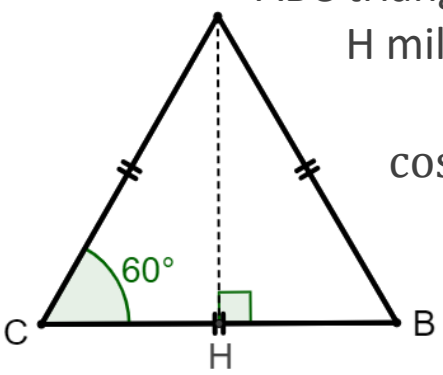
$\tan(45°) = \cdots$



Géométrie (angles et trigo) ✶✶

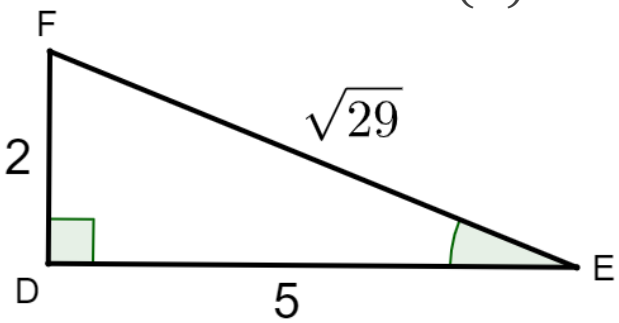
ABC triangle équilatéral.
H milieu de [BC].

$\cos(60°) = \cdots$



Géométrie (angles et trigo)

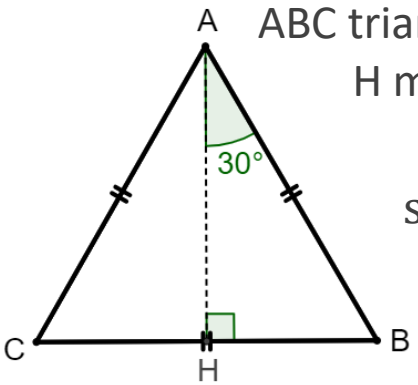
$\sin(\hat{E}) = \cdots$



Géométrie (angles et trigo) ✶✶

ABC triangle équilatéral.
H milieu de [BC].

$\sin(30°) = \cdots$



$$\cos(\hat{S}) = \frac{2}{\sqrt{5}}$$

$$\tan(\hat{S}) = \frac{2}{3}$$

$$\sin(\hat{B}) = \frac{AC}{BC}$$

$$\sin(32°) = \frac{AC}{7}$$

$$\mathrm{AC} = 7 \times \sin(32°)$$

$$\tan(\hat{E}) = \frac{DF}{DE}$$

$$\tan(30°) = \frac{DF}{5}$$

$$\mathrm{DF} = 5 \times \tan(30°)$$

Soit a la longueur de chaque côté du triangle équilatéral.

$CH = 0{,}5a$

$$\cos(60°) = \frac{0{,}5a}{a} = 0{,}5$$

Soit a la longueur de chaque côté de l'angle droit.

$$\tan(45°) = \frac{a}{a} = 1$$

Soit a la longueur de chaque côté du triangle équilatéral.

$BH = 0{,}5a$

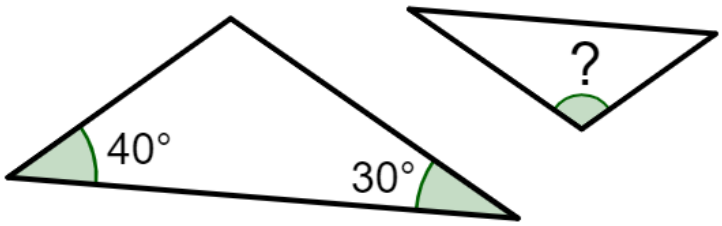
$$\sin(30°) = \frac{0{,}5a}{a} = 0{,}5$$

$$\sin(\hat{E}) = \frac{2}{\sqrt{29}}$$

Géométrie (angles et trigo) ✶✶

Les deux triangles sont semblables.

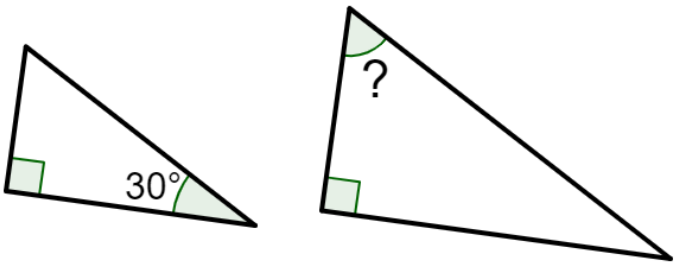
$? = \cdots$



Géométrie (angles et trigo) ✶✶

Les deux triangles sont semblables.

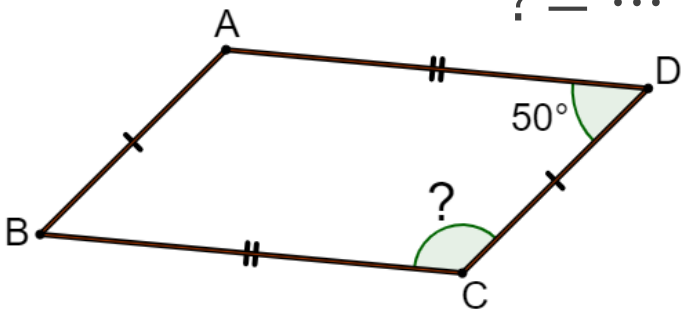
$? = \cdots$



Géométrie (angles et trigo) ✶

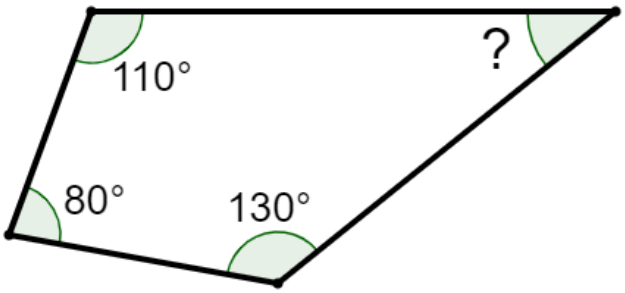
ABCD est un parallélogramme.

$? = \cdots$

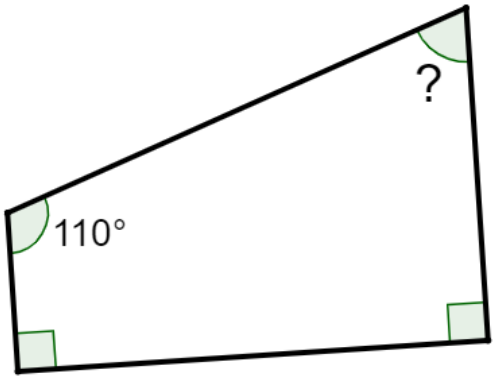


Géométrie (angles et trigo) ✶

$? = \cdots$

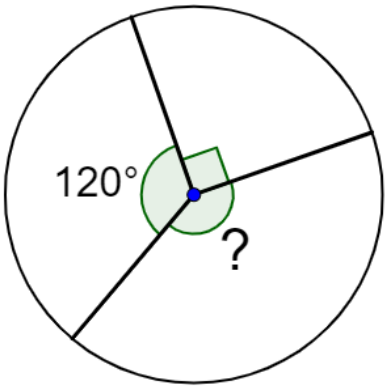


Géométrie (angles et trigo) ✶



$? = \cdots$

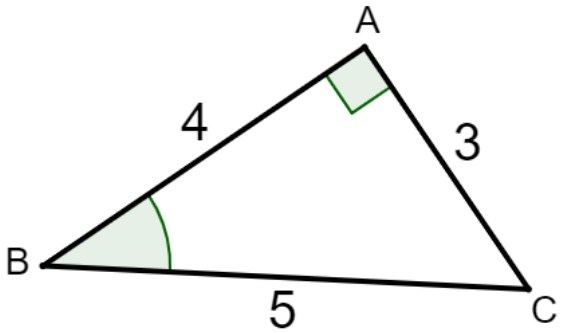
Géométrie (angles et trigo) ✶



$? = \cdots$

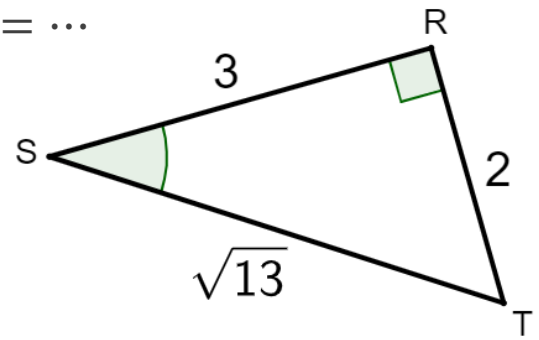
Géométrie (angles et trigo)

$\tan(\hat{B}) = \cdots$



Géométrie (angles et trigo)

$\sin(\hat{S}) = \cdots$



Les angles du grand triangle ont la même mesure que ceux du petit.

$$? = 180 - (90° + 30°)$$
$$? = 60°$$

Les angles du petit triangle ont la même mesure que ceux du grand.

$$? = 180 - (30° + 40°)$$
$$? = 110°$$

A retenir : la somme des mesures des angles d'un quadrilatère est égale à $360°$.

$$110° + 80° + 130° = 320°$$
$$? = 360° - 320° = 40°$$

A retenir : deux angles consécutifs d'un parallélogramme sont supplémentaires.

$$? = 180° - 50° = 130°$$

A retenir :
un tour complet vaut 360°.

$$? = 360° - (120° + 90°)$$
$$? = 150°$$

A retenir : la somme des mesures des angles d'un quadrilatère est égale à $360°$.

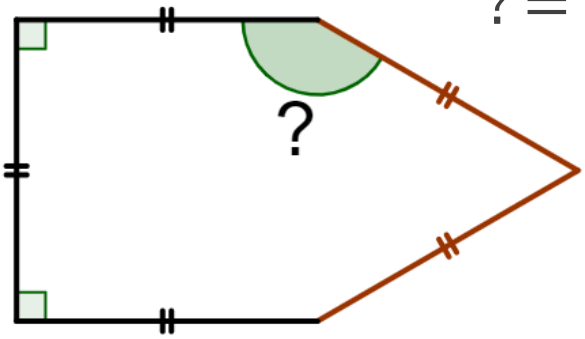
$$110° + 90° + 90° = 290°$$
$$? = 360° - 290° = 70°$$

$$\sin(\hat{S}) = \frac{2}{\sqrt{13}}$$

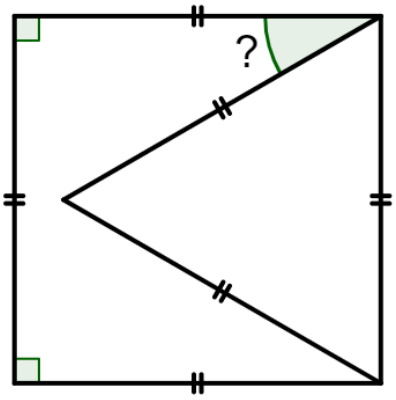
$$\tan(\hat{B}) = \frac{3}{4}$$

Géométrie (angles et trigo) ✶

$? = \cdots$

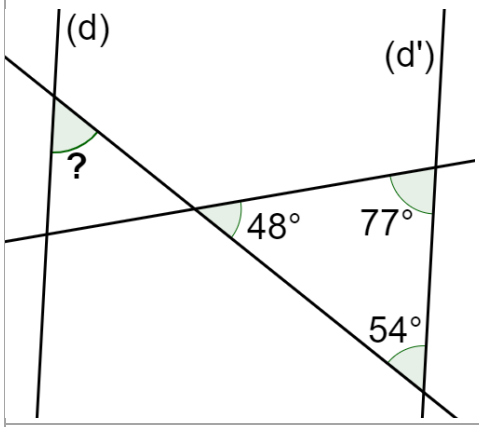


Géométrie (angles et trigo) ✶



$? = \cdots$

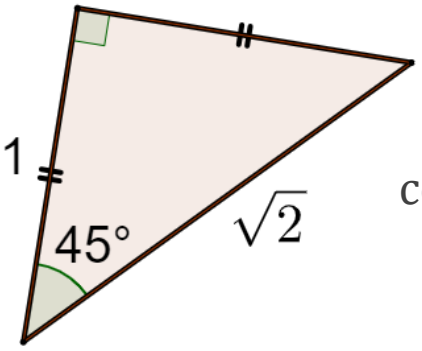
Géométrie (angles et trigo)



$(d)//(d')$

$? = \cdots$

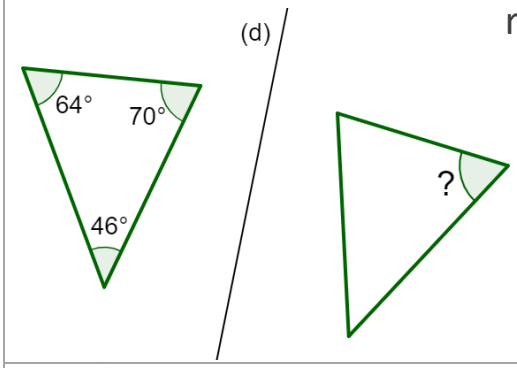
Géométrie (angles et trigo)



$\cos(45°) = \cdots$

Géométrie (angles et trigo)

Les deux triangles sont symétriques par rapport à (d).

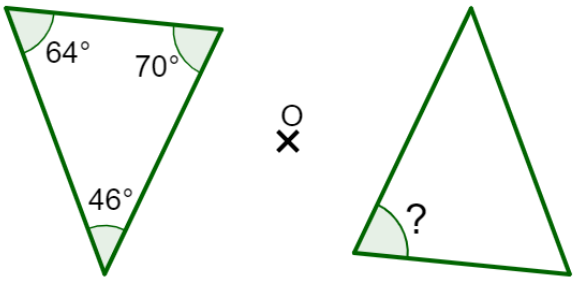


$? = \cdots$

Géométrie (angles et trigo)

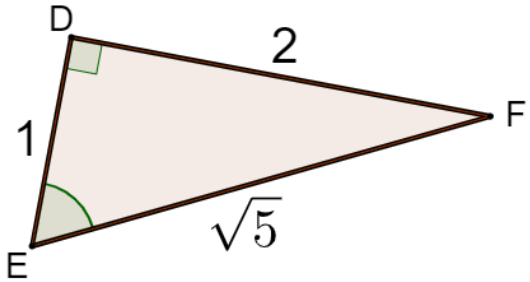
Les deux triangles sont symétriques par rapport à O.

$? = \cdots$



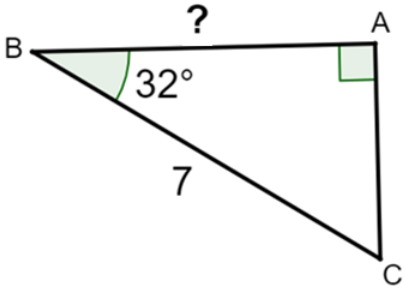
Géométrie (angles et trigo)

$\tan \widehat{DEF} = \cdots$



Géométrie (angles et trigo) ✶✶

$BA = \cdots$



- ❍ $7 \times \cos(32°)$
- ❍ $7 \times \sin(32°)$
- ❍ $7 \times \tan(32°)$

$$? = 90° - 60° = 30°$$

$$? = 90° + 60° = 150°$$

$$\cos(45°) = \frac{1}{\sqrt{2}}$$

$$? = 54°$$

$$? = 70°$$

$$? = 64°$$

$$\cos(\hat{B}) = \frac{BA}{BC}$$

$$\cos(32°) = \frac{BA}{7}$$

$$\mathrm{BA} = 7 \times \cos(32°)$$

$$\tan(\widehat{DEF}) = \frac{2}{1} = 2$$