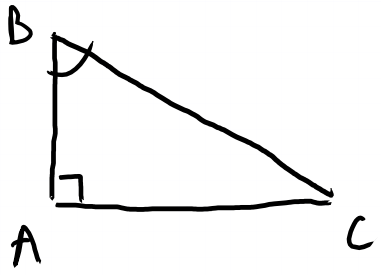
4)



$\sin\hat{B} = \cos\hat{B}$

Donc : $\dfrac{\sin\hat{B}}{\cos\hat{B}} = 1$

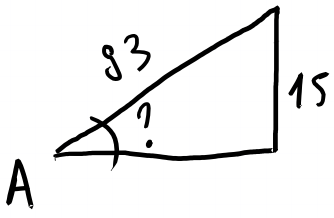
$\tan\hat{B} = 1$

Alors : $\hat{B} = \arctan(1) = 45°$

$\Rightarrow \hat{B} = \hat{C} = 45°$

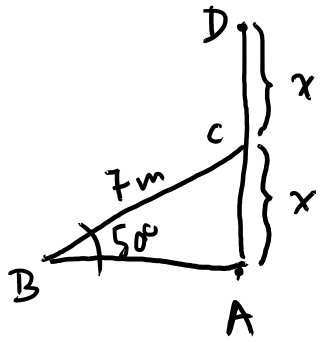
Triangle isocèle

5)



$\hat{A} = \arcsin\left(\dfrac{15}{93}\right) = 9,28°$

6)

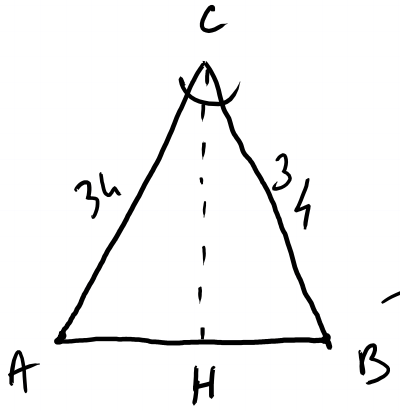


$AD = 2x$

$x = 7 \times \sin 50°$

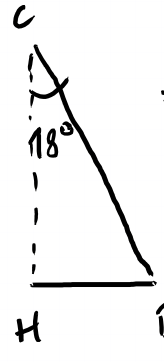
Donc $AD = 14 \times \sin 50° = 10,72$ m

7)



$\hat{C} = 36°$

$\text{Aire} = \dfrac{AB \times CH}{2}$



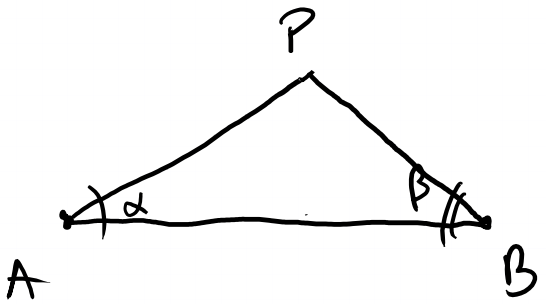
$\Rightarrow CH = 34 \times \cos 18° = 32,3$ m

$HB = 34 \times \sin 18° = 10,5$ m

$AB = 2 \times HB = 21$ m

$\text{Aire} = 339,15$ m²

8)



a) $AP = ?$

b) $BP = ?$

$AB = 100\ m \qquad \alpha = 30° \qquad \beta = 60°$

a) $\alpha + \beta + \hat{P} = 180°$

$30° + 60° + \hat{P} = 180°$

$\hat{P} = 180° - 30° - 60° = 90°$

Donc le triangle ABP est rectangle

Alors $AP = AB \cos\alpha = AB \sin\beta = 86,6\ m$

b) $BP = AB \cos\beta = AB \sin\alpha = 50\ m$