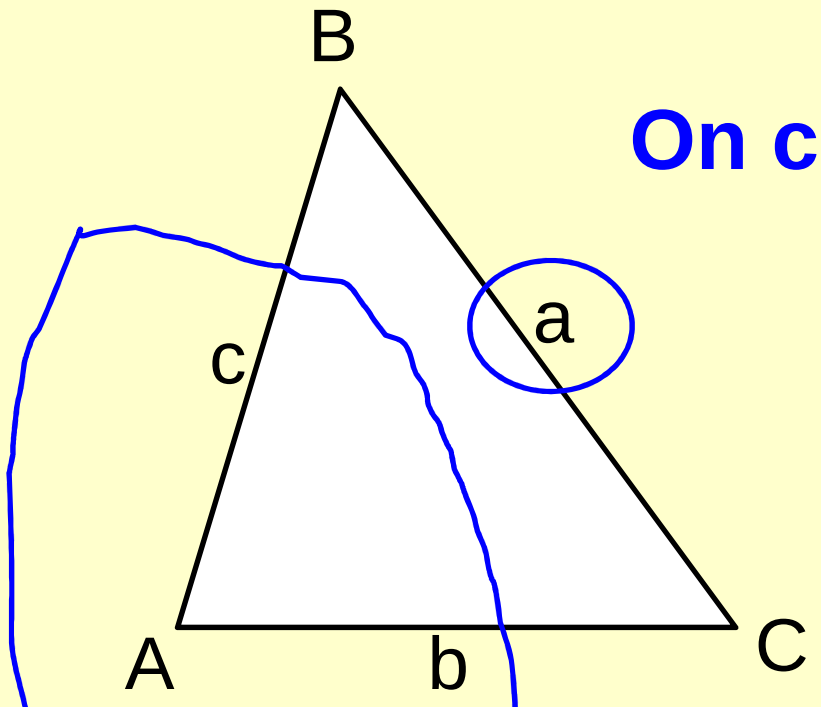
Chapitre 8.3

Loi des cosinus

$$a^2 = b^2 + c^2 - 2bc\cos A$$

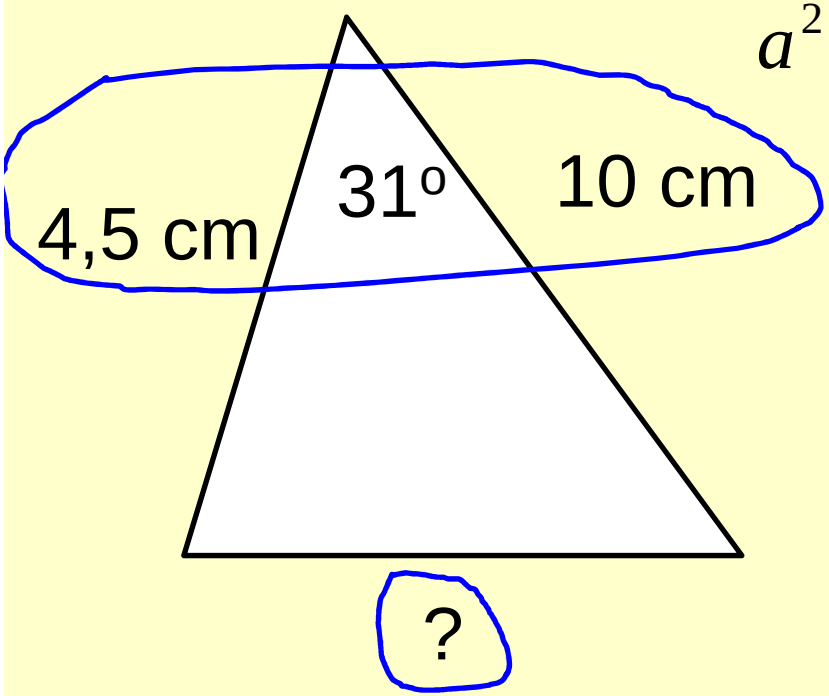


On cherche a.

On doit connaître ces valeurs

Chapitre 8.3

Exemple 1



Loi des cosinus

$$a^2 = b^2 + c^2 - 2bc\cos A$$

$$a^2 = (4{,}5)^2 + (10)^2 - 2(4{,}5)(10)\cos 31^o$$

$$a^2 = 120{,}25 - 2(4{,}5)(10)\cos 31^o$$

$$a^2 = 120{,}25 - 77{,}145$$

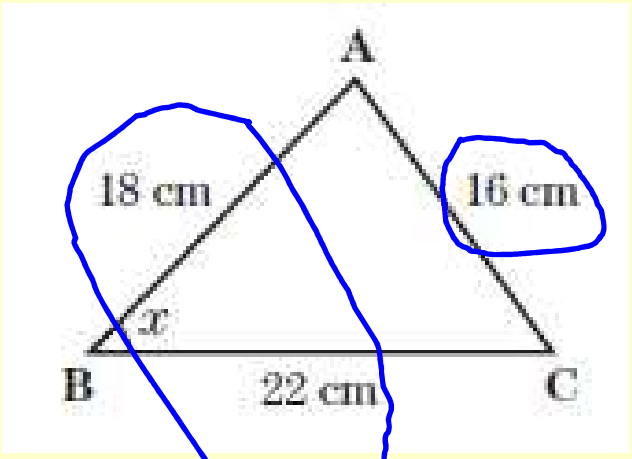
$$a^2 = 43{,}105$$

$$a = \pm 6{,}57 cm$$

$$a = 6{,}57 cm$$

Chapitre 8.3

Exemple 2



Loi des cosinus

$$a^2 = b^2 + c^2 - 2bc\cos A$$

$$16^2 = 18^2 + 22^2 - 2(18)(22)\cos A$$

$$256 = 808 - 792\cos A$$

$$-552 = -792\cos A$$

$$0{,}69697 = \cos A$$

$$\cos^{-1}(0{,}69697) = A$$

$$A = 45{,}81^o$$

Loi des cosinus	$a^2 = b^2 + c^2 - 2bc\cos A$ $b^2 = a^2 + c^2 - 2ac\cos B$ $c^2 = a^2 + b^2 - 2ab\cos C$