

Démontrer que $\tan A = \sin A/\cos A$

Dans un triangle ABC rectangle en B, on a : $\tan \widehat{A} = \frac{\sin \widehat{A}}{\cos \widehat{A}}$.

$$\text{On sait que : } \tan \widehat{A} = \frac{\text{Cote opposée}}{\text{Cote adjacent}} = \frac{BC}{AB}.$$

$$\cos \widehat{A} = \frac{\text{Cote adjacent}}{\text{Hypotenuse}} = \frac{AB}{AC}$$

$$\sin \widehat{A} = \frac{\text{Cote opposée}}{\text{Hypotenuse}} = \frac{BC}{AC}$$

$$\frac{\sin \widehat{A}}{\cos \widehat{A}} = \frac{BC \times AC}{AB \times AC} = \frac{BC}{AB} = \tan \widehat{A}$$