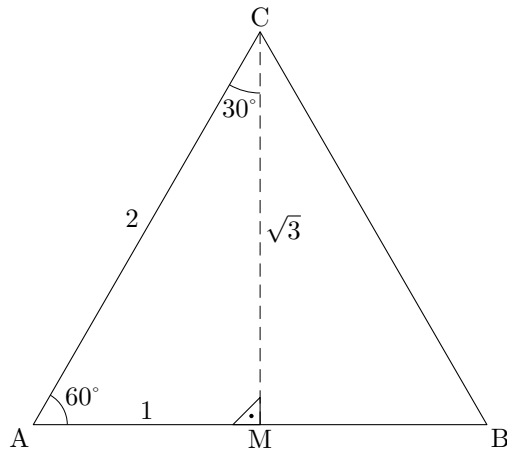


16.8



1) Il est clair que $\widehat{MAC} = 60^\circ$ et $\widehat{ACM} = 30^\circ$.

2) L'énoncé stipule que $AB = AC = BC = 2$.

Comme M est le milieu de AB, on a $AM = \frac{1}{2} AB = \frac{1}{2} \cdot 2 = 1$.

Vu que le triangle ACM est rectangle en M, le théorème de Pythagore donne $CM = \sqrt{2^2 - 1^2} = \sqrt{3}$.

$$3) \cos(30^\circ) = \frac{CM}{AC} = \frac{\sqrt{3}}{2}$$

$$\sin(30^\circ) = \frac{AM}{AC} = \frac{1}{2}$$

$$\tan(30^\circ) = \frac{AM}{CM} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$

$$\cos(60^\circ) = \frac{AM}{AC} = \frac{1}{2}$$

$$\sin(60^\circ) = \frac{CM}{AC} = \frac{\sqrt{3}}{2}$$

$$\tan(60^\circ) = \frac{CM}{AM} = \frac{\sqrt{3}}{1} = \sqrt{3}$$