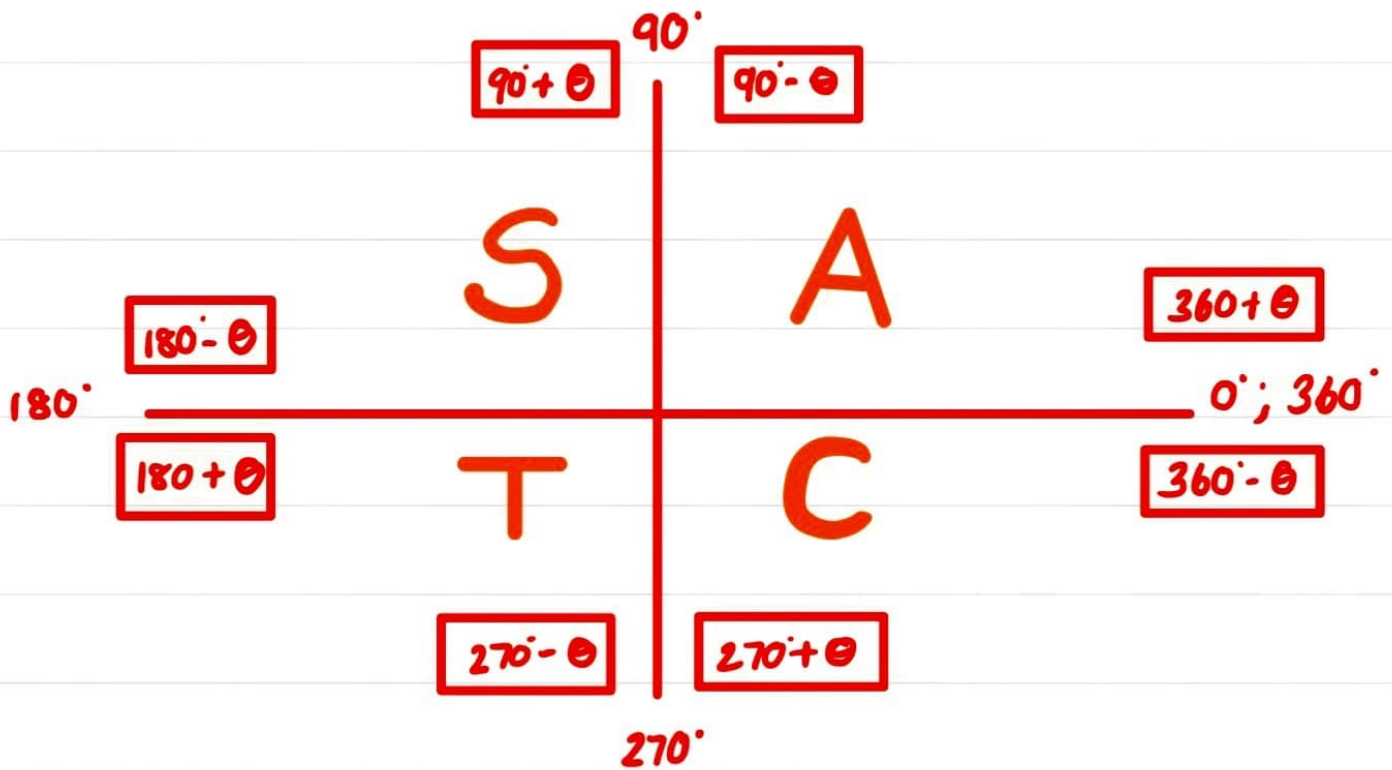
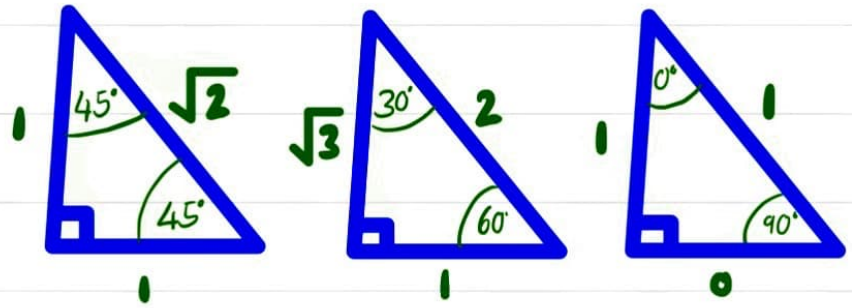


Trigonometrie Deel 1 : Algemene beginsels

sin	cos	tan
T	A	T
S	S	A



Identiteite:

- $\tan \theta = \frac{\sin \theta}{\cos \theta}$

- $\sin^2 \theta + \cos^2 \theta = 1$

- $\rightarrow \sin^2 \theta = 1 - \cos^2 \theta$

- $\rightarrow \cos^2 \theta = 1 - \sin^2 \theta$

Gr. 12 saamgestelde hoek identiteite

- $\sin(A+B) = \sin A \cos B + \cos A \sin B$
- $\sin(A-B) = \sin A \cos B - \cos A \sin B$
- $\cos(A+B) = \cos A \cos B - \sin A \sin B$
- $\cos(A-B) = \cos A \cos B + \sin A \sin B$

Vereenvoudig sonder die gebruik van 'n sakrekenaar:



$$\sin(x + 60^\circ) - \sin(x - 60^\circ)$$

② $\sin 50^\circ \cdot \sin 20^\circ + \cos 20^\circ \cdot \cos 50^\circ$

③ $\cos 40^\circ \cdot \sin 10^\circ - \sin 40^\circ \cdot \cos 10^\circ$

④

$$-\cos 15^\circ \sin 30^\circ - \cos 75^\circ \cos 30^\circ$$

⑤.1

$$\sin 75^\circ$$

⑤.2

$$\sin 15^\circ$$

6 $\sqrt{3} \cos B + \sin B$

7 $\sin 50^\circ + \cos 50^\circ \tan 20^\circ$

Gr.12 Dubbelhoek identiteite

- $\sin 2A = 2 \sin A \cdot \cos A$

- $\begin{aligned} \cos 2A &= 1 - 2\sin^2 A \\ &= 2\cos^2 A - 1 \\ &= \cos^2 A - \sin^2 A \end{aligned}$

Vereenvoudig sonder die gebruik van 'n sakrekenaar:

① $\frac{\cos 2B + 1}{2\cos B}$

② $\cos^2 15^\circ - \sin^2 15^\circ$

③ $\frac{\sin 42^\circ}{\sin 14^\circ} - \frac{\cos 42^\circ}{\cos 14^\circ}$

④ $-\cos^2 15^\circ - \sin^2 15^\circ$

⑤ $1 - 2\cos^2 \frac{x}{2}$

⑥ $\sin 15^\circ \cdot \cos 15^\circ$

⑦ $2\cos^2 15^\circ$

⑧ $\frac{1}{2} - \sin^2 22,5^\circ$

⑨ $(\sin 22,5^\circ - \cos 22,5^\circ)(\sin 22,5^\circ + \cos 22,5^\circ)$