



Air maths tuition

Interact, engage and perform

Trigonometric Sum and Difference Identities - (Addition Formulae)

$$\sin(A+B) \equiv \sin A \cos B + \sin B \cos A$$

$$\sin(A-B) \equiv \sin A \cos B - \sin B \cos A$$

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

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

$$\tan(A+B) \equiv \frac{\tan A + \tan B}{1 - \tan A \tan B}$$

$$\tan(A-B) \equiv \frac{\tan A - \tan B}{1 + \tan A \tan B}$$

$$\sin(30^\circ + 20^\circ) = \cancel{\sin 30^\circ} + \cancel{\sin 20^\circ}$$
$$= \cancel{0.5} + \cancel{0.3420}$$

$$\sin 50^\circ = 0.7660\dots$$

$$\sin(30^\circ + 20^\circ) = \sin 30^\circ \cos 20^\circ + \sin 20^\circ \cos 30^\circ$$
$$= 0.7660\dots$$

$$\text{Let } A = 40^\circ, B = 10^\circ$$

$$\tan(40^\circ + 10^\circ) = \frac{\tan 40^\circ + \tan 10^\circ}{1 - \tan 40^\circ \tan 10^\circ}$$
$$= 1.1917\dots$$



With the acknowledgement of [Exam Solutions](#).
Find lots more revision sheets on [Air Maths Tuition](#).
[This Video](#)



Exam Solutions
m a t h s m a d e e a s y