wÎ‡KvYwgwZK mÎve jx

$\sin(A\pm B)=\sin A\cos B\pm\cos A\sin B$

$\cos(A\pm B)=\cos A\cos B\mp\sin A\sin B$

$\sin(A+B)\sin(A-B)=\sin^2 A-\sin^2 B=\cos^2 B-\cos^2 A$

$\cos(A+B)\cos(A-B)=\cos^2 A-\sin^2 B=\cos^2 B-\sin^2 A$

$\tan(A\pm B)=\dfrac{\tan A\pm\tan B}{1\mp\tan A\tan B}$

$\cot(A\pm B)=\dfrac{\cot A\cot B\mp 1}{\cot B\pm\cot A}$

$2\sin A\cos B=\sin(A+B)+\sin(A-B)$

$2\cos A\sin B=\sin(A+B)-\sin(A-B)$

$2\cos A\cos B=\cos(A+B)+\cos(A-B)$

$2\sin A\sin B=\cos(A-B)-\cos(A+B)$

$\sin C+\sin D=2\sin\dfrac{C+D}{2}\cos\dfrac{C-D}{2}$

$\sin C-\sin D=2\cos\dfrac{C+D}{2}\sin\dfrac{C-D}{2}$

$\cos C+\cos D=2\cos\dfrac{C+D}{2}\cos\dfrac{C-D}{2}$

$\cos D-\cos C=2\sin\dfrac{C+D}{2}\sin\dfrac{C-D}{2}$

$\sin 2A=2\sin A\cos A$; $\cos 2A=\cos^2 A-\sin^2 A$

$\tan 2A=\dfrac{2\tan A}{1-\tan^2 A}$; $\cot 2A=\dfrac{\cot^2 A-1}{2\cot A}$

$\sin 2A=\dfrac{2\tan A}{1+\tan^2 A}$; $\cos 2A=\dfrac{1-\tan^2 A}{1+\tan^2 A}$

$1-\cos 2A=2\sin^2 A$; $1+\cos 2A=2\cos^2 A$

$\dfrac{1-\cos 2A}{1+\cos 2A}=\tan^2 A$

$\sin 3A=3\sin A-4\sin^3 A$; $\cos 3A=4\cos^3 A-3\cos A$

$\tan 3A=\dfrac{3\tan A-\tan^3 A}{1-3\tan^2 A}$

$\sin\theta=2\sin\dfrac{\theta}{2}\cos\dfrac{\theta}{2}$; $\cos\theta=\cos^2\dfrac{\theta}{2}-\sin^2\dfrac{\theta}{2}$

$1+\cos\theta=2\cos^2\dfrac{\theta}{2}$; $1-\cos\theta=2\sin^2\dfrac{\theta}{2}$

$\tan\theta=\dfrac{2\tan\frac{\theta}{2}}{1-\tan^2\frac{\theta}{2}}$; $\sin\theta=\dfrac{2\tan\frac{\theta}{2}}{1+\tan^2\frac{\theta}{2}}$;

$\cos\theta=\dfrac{1-\tan^2\frac{\theta}{2}}{1+\tan^2\frac{\theta}{2}}$

$\sin\theta=0$ n‡j, $\theta=n\pi$; $\tan\theta=0$ n‡j, $\theta=n\pi$;

$\cos\theta=0$ n‡j, $\theta=(2n+1)\dfrac{\pi}{2}$;

$\sin\theta=1$ n‡j, $\theta=(4n+1)\dfrac{\pi}{2}$;

$\sin\theta=-1$ n‡j, $\theta=(4n-1)\dfrac{\pi}{2}$;

$\cos\theta=1$ n‡j, $\theta=2n\pi$

$\cos\theta=-1$ n‡j, $\theta=(2n+1)\pi$;

$\sin\theta=k=\sin\alpha$ n‡j, $\theta=n\pi+(-1)^n\alpha$

$\cos\theta=k=\cos\alpha$ n‡j, $\theta=2n\pi\pm\alpha$

$\tan\theta=k=\tan\alpha$ n‡j, $\theta=n\pi+\alpha$

$\sin^{-1}x=\operatorname{cosec}^{-1}\dfrac{1}{x}$; $\operatorname{cosec}^{-1}x=\sin^{-1}\dfrac{1}{x}$

$\cos^{-1}x=\sec^{-1}\dfrac{1}{x}$; $\sec^{-1}x=\cos^{-1}\dfrac{1}{x}$

$\tan^{-1}x=\cot^{-1}\dfrac{1}{x}$; $\cot^{-1}x=\tan^{-1}\dfrac{1}{x}$

$\sin^{-1}x=\cos^{-1}\sqrt{1-x^2}$; $\cos^{-1}x=\sin^{-1}\sqrt{1-x^2}$

$\sec^{-1}x=\tan^{-1}\sqrt{x^2-1}$; $\tan^{-1}x=\sec^{-1}\sqrt{1+x^2}$

$\operatorname{cosec}^{-1}x=\cot^{-1}\sqrt{x^2-1}$; $\cot^{-1}x=\operatorname{cosec}^{-1}\sqrt{1+x^2}$

$\tan^{-1}x\pm\tan^{-1}y=\tan^{-1}\dfrac{x\pm y}{1\mp xy}$

$\tan^{-1}x+\tan^{-1}y+\tan^{-1}z=\tan^{-1}\dfrac{x+y+z-xyz}{1-yz-zx-xy}$

$2\tan^{-1}x=\tan^{-1}\dfrac{2x}{1-x^2}=\sin^{-1}\dfrac{2x}{1+x^2}=\cos^{-1}\dfrac{1-x^2}{1+x^2}$

$\sin^{-1}x\pm\sin^{-1}y=\sin^{-1}\left\{x\sqrt{1-y^2}\pm y\sqrt{1-x^2}\right\}$

$\cos^{-1}x\pm\cos^{-1}y=\cos^{-1}\left\{xy\mp\sqrt{1-x^2}\sqrt{1-y^2}\right\}$

$\dfrac{a}{\sin A}=\dfrac{b}{\sin B}=\dfrac{c}{\sin C}=2R$

$\cos A=\dfrac{b^2+c^2-a^2}{2bc}$; $\cos B=\dfrac{c^2+a^2-b^2}{2ca}$

$\cos C=\dfrac{a^2+b^2-c^2}{2ab}$; $a=b\cos C+c\cos B$

$b=c\cos A+a\cos C$; $c=a\cos B+b\cos A$

wÎf‡Ri †¶Îdj, $\Delta=\dfrac{1}{2}bc\sin A=\dfrac{1}{2}ca\sin B=\dfrac{1}{2}ab\sin C$

$=\sqrt{s(s-a)(s-b)(s-c)}$

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