Unit n°51

Nachtrag 1

$$\frac{\sin 2x}{\sin x} = \begin{vmatrix} 2\cos x \end{vmatrix}$$

$$\frac{\sin 3x}{\sin x} = \begin{vmatrix} 2\cos x & 1 \\ 1 & 2\cos x \end{vmatrix}$$

$$\frac{\sin 4x}{\sin x} = \begin{vmatrix} 2\cos x & 1 & 0 \\ 1 & 2\cos x & 1 \\ 0 & 1 & 2\cos x \end{vmatrix}$$

$$\frac{\sin 5x}{\sin x} = \begin{vmatrix} 2\cos x & 1 & 0 & 0 \\ 1 & 2\cos x & 1 & 0 \\ 0 & 1 & 2\cos x & 1 \\ 0 & 0 & 1 & 2\cos x \end{vmatrix}$$

$$\vdots$$

$$\frac{\cos x}{\cos x} = \begin{vmatrix} 1 \end{vmatrix}$$

$$\cos 2x = \begin{vmatrix} 1 & 2\sin x \\ \sin x & 1 \end{vmatrix}$$

$$\frac{\cos 3x}{\cos x} = \begin{vmatrix} 1 & 2\sin x & 0 \\ \sin x & 1 & 2\sin x \\ 0 & \sin x & 1 \end{vmatrix}$$

$$= \begin{vmatrix} 1 & 2\sin x \\ 2\sin x & 1 \end{vmatrix}$$

$$\cos 4x = \begin{vmatrix} 1 & 2\sin x & 0 & 0 \\ \sin x & 1 & 2\sin x & 0 \\ 0 & \sin x & 1 & 2\sin x \\ 0 & 0 & \sin x & 1 \end{vmatrix}$$

$$\frac{\cos 5x}{\cos x} = \begin{vmatrix} 1 & 2\sin x & 0 & 0 & 0 \\ \sin x & 1 & 2\sin x & 0 & 0 \\ 0 & \sin x & 1 & 2\sin x & 0 \\ 0 & 0 & \sin x & 1 & 2\sin x \\ 0 & 0 & 0 & \sin x & 1 \end{vmatrix}$$

$$= \begin{vmatrix} 1 & 2\sin x & 0 & 0 \\ 2\sin x & 1 & 2\sin x & 0 \\ 0 & 2\sin x & 1 & 2\sin x \\ 0 & 0 & 2\sin x & 1 \end{vmatrix}$$

$$\vdots$$