

$$18) \sin 5x = \sin x (\cos^2 2x - \sin^2 2x) + \\ + 2 \cos x \cos 2x \sin 2x$$

$$\rightarrow // \sin 5x = \sin (x + 4x)$$

$$= \sin x \cos 4x + \sin 4x \cos x$$

$$= \sin x \underbrace{\cos(2 \cdot 2x)} + \underbrace{\sin(2 \cdot 2x)} \cos x$$

$$= \sin x (\cos^2 2x - \sin^2 2x) +$$

$$+ \underbrace{2 \sin 2x \cos 2x \cos x}$$

$$= \sin x (\cos^2 2x - \sin^2 2x) + //$$

$$+ 2 \cos x \cos 2x \sin 2x //$$

$$19) \sin\left(\frac{\pi}{2} - x\right) \operatorname{ctg}\left(\frac{\pi}{2} + x\right) = -\sin x$$

→

$$\underbrace{\sin\left(\frac{\pi}{2} - x\right)} \underbrace{\operatorname{ctg}\left(\frac{\pi}{2} + x\right)} =$$

$$= \cos x (-\operatorname{tg} x)$$

$$= -\cos x \operatorname{tg} x = -\cos x \frac{\sin x}{\cos x}$$

$$= -\sin x //$$