

$$\begin{aligned}
 \text{7.2} \quad (1.33) \quad f(x) &= \cos 3x \rightarrow f' = -3 \sin 3x \rightarrow f'' = -3^2 \cos(3x) \rightarrow f''' = 3^3 \sin(3x) \rightarrow f^{(4)} = -3^4 \cos(3x) \\
 &= -3 \cos\left(\frac{\pi}{2} + 3x\right) = -3^2 \cos\left(\frac{\pi}{2} + 3x\right) = 3^3 \cos\left(3 \cdot \frac{\pi}{2} + 3x\right) = -3^4 \cos\left(4 \cdot \frac{\pi}{2} + 3x\right) \\
 \text{7.3} \quad f(x) &= \sin^2 x \quad f^{(n)}(x) = 3^n \cos\left(n \cdot \frac{\pi}{2} + x\right)
 \end{aligned}$$