52. $f(x) = \dfrac{2}{\sqrt[3]{x}} + 3\cos x = 2x^{-1/3} + 3\cos x$

$$f'(x) = -\frac{2}{3}x^{-4/3} - 3\sin x = -\frac{2}{3x^{4/3}} - 3\sin x$$