1. Find the derivative of the following function.

\[ f(x) = \sin(x) \cos(x) \]

**Solution:**

\[ f'(x) = \sin(x)(-\sin(x)) + \cos(x) \cos(x) = \cos^2(x) - \sin^2(x) = \cos(2x) \]

2. Find the derivative of the following function.

\[ f(x) = (x^3 - \sqrt{x})^{25} \]

**Solution:**

\[ f'(x) = 25 (x^3 - \sqrt{x})^{24} \left( 3x^2 - \frac{1}{2\sqrt{x}} \right) \]