MATH 2B/5B Prep: Product & Quotient Rule

1. Find the derivative of $f(x) = x^2 \sec(x)$.

2. Compute the derivative of $\frac{\sin(3x)}{x}$.

3. Find
$$\frac{\mathrm{d}}{\mathrm{d}x} \frac{\tan(x)e^x}{x^2}$$