Compute the following limits:

1. \[
\lim_{y \to 0} y \frac{\sin(3y)}{4y} = \lim_{y \to 0} \frac{\sin(3y)}{y} = \lim_{y \to 0} 3 \frac{\sin(3y)}{3y} = \frac{3}{4}.
\]

2. \[
\lim_{x \to 0} \frac{\tan(2x)}{x} = \lim_{x \to 0} \frac{\sin(2x)}{x^2} \frac{1}{\cos(2x)} = \lim_{x \to 0} \frac{\sin(2x)}{2x} \frac{2}{\cos(2x)} = 2.\]