## TMATH 124: Concept Check Day 9

Be sure to write down your ideas (numerically, algebraically, or geometrically) so that you can earn credit for your work!! To earn full marks for this you must attempt all problems.

1. Differentiate the following:

$$
7 e^{x} \sqrt{x}
$$

$$
6+\cos (2 x)
$$

2. Use the graphs of $f$ and $g$ on the left and right respectively to estimate the following:


$(f \cdot g)^{\prime}(0)$
$\left.\frac{d}{d x}\left(\frac{f}{g}\right)\right|_{x=0}$
