## Mathematics 122

Quiz \#18
Name: $\qquad$
(1) What is the period of $f(x)=3 \sin (4 x)$ ?
(2) If $y=3 \sin (x)+4 \cos (2 x)$ find the first and second derivatives.

$$
y^{\prime}=
$$

$\qquad$

$$
y^{\prime \prime}=
$$

$\qquad$
(3) If $y=e^{x} \cos (x)$ find $y^{\prime}$

$$
y^{\prime}=
$$

$\qquad$
(4) What is the tangent line to $y=\cos (x)$ at the point where $x=0$ ? Hint: You computed the derivative in the last question.

