## Chapter one

## The First Chapter

Exercise 1 Compute the derivative of the following function:

$$
f(x)=\sin \left((\sin x)^{2}\right)
$$

The solution of this exercise is on page 4.

$$
\begin{array}{|l|l|l|l|l}
\hline \text { Exercise } 2 & \text { Compute the derivative of the following function: } \\
\hline & f(x)=\sin \left((\sin x)^{2}\right) & \\
\hline
\end{array}
$$

The solution of this exercise is on page 4.

## Chapter two

## The Second Chapter

$$
\begin{gathered}
\text { Exercise } 3 \text { Compute the derivative of the following function: } \\
f(x)=\left(x^{2}+1\right) \sqrt{x^{4}+1}
\end{gathered}
$$

The solution of this exercise is on page 4.

### 2.1 Solutions of the Exercices

Solutions to the Exercises of Chapter two

Solution 1 The derivative is:

$$
f(x)=\left(\sin \left((\sin x)^{2}\right)\right)^{\prime}=\cos \left((\sin x)^{2}\right) \cdot 2 \sin x \cos x
$$

Exercise 1 is on page 1.

Solution 2 The derivative is:

$$
f(x)=\left(\sin \left((\sin x)^{2}\right)\right)^{\prime}=\cos \left((\sin x)^{2}\right) \cdot 2 \sin x \cos x
$$

Exercise 2 is on page 1.

Solutions to the Exercises of Chapter two

Solution 3 The derivative is:

$$
f(x)=\left(\left(x^{2}+1\right) \sqrt{x^{4}+1}\right)^{\prime}=2 x \sqrt{x^{4}+1}+\frac{2 x^{3}\left(x^{2}+1\right)}{\sqrt{x^{4}+1}}
$$

Exercise 3 is on page 3.

