Chapter one

The First Chapter

> **Exercise 1**   Compute the derivative of the following function:
> $$f(x) = \sin((\sin x)^2)$$

The solution of this exercise is on page 4.

> **Exercise 2**   Compute the derivative of the following function:
> $$f(x) = \sin((\sin x)^2)$$

The solution of this exercise is on page 4.

Chapter two

The Second Chapter

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

2.1   Solutions of the Exercices

Solutions to the Exercises of Chapter two

> **Solution 1**   The derivative is:
> $$f'(x) = (\sin((\sin x)^2))' = \cos((\sin x)^2) \cdot 2 \sin x \cos x$$

Exercise 1 is on page 1.

> **Solution 2**   The derivative is:
> $$f'(x) = (\sin((\sin x)^2))' = \cos((\sin x)^2) \cdot 2 \sin x \cos x$$

Exercise 2 is on page 1.

Solutions to the Exercises of Chapter two

> **Solution 3**   The derivative is:
> $$f'(x) = ((x^2 + 1)\sqrt{x^4 + 1})' = 2x\sqrt{x^4 + 1} + \frac{2x^3(x^2 + 1)}{\sqrt{x^4 + 1}}$$

Exercise 3 is on page 3.