

# Homework assignment title.

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An alternative for big teams - Chick Corea (884422), Baby Yoda (774455), Paco de Lucía (778899), Suzanne Ciani (365411), Alan Turing (312511) and others.

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## Abstract

Summary of main findings and conclusions. Optional section.

**Keywords:** Optional section. quantitative finance; financial risk; financial modeling in R; Optional section.

## 1 Introduction.

*Look how you can add web links in the following sentence.* This template is based on the generic OUP template available [here](#). **Now, look how you can add a different font.** This is useful for **file** or **function** **names**. The original OUP sample tex document, providing more details on preferred formatting for LaTeX documents, is included with the template in the file `ouparticle_sample.tex`.

Here are some sample references. *Reference in brackets as in a list.* Please see ([Hull 2015a](#); [Carhart 1997](#)) for a full discussion of multi-factor models. Bibliography will appear

at the end of the document. *Second, without brackets, separated by a comma.* See [Hull \(2015a\)](#), [Hull \(2015b\)](#), [Cochrane \(2009\)](#) for a formal demonstration of analytical results, and ([Carhart 1997](#); [Cochrane 1996](#)) for some empirical results.

## 2 Methodology.

An equation with a label for cross-referencing:

$$\int_0^{r_2} F(r, \varphi) dr d\varphi = [\sigma r_2 / (2\mu_0)] \int_0^\infty \exp(-\lambda |z_j - z_i|) \lambda^{-1} J_1(\lambda r_2) J_0(\lambda r_i) \lambda d\lambda \quad (1)$$

This equation can be referenced as follows: Eq. [1](#). Now a simpler equation:

$$w = \sum_{i=1}^{20} [1/n^i] \quad (2)$$

This equation can be referenced as Eq. [2](#).

We can also write equations within the main text as here:  $w = \sum_{i=1}^{20} [1/n^i]$ .

### 2.1 A subsection.

A numbered list:

- 1) First numbered point
- 2) Second numbered point
  - Subpoint

A bullet list:

- First point
- Second point

## 3 Results.

### 3.1 Generate a figure.

```
plot(1:10, main = "Some data", xlab = "Distance (cm)",
     ylab = "Time (hours)")
```

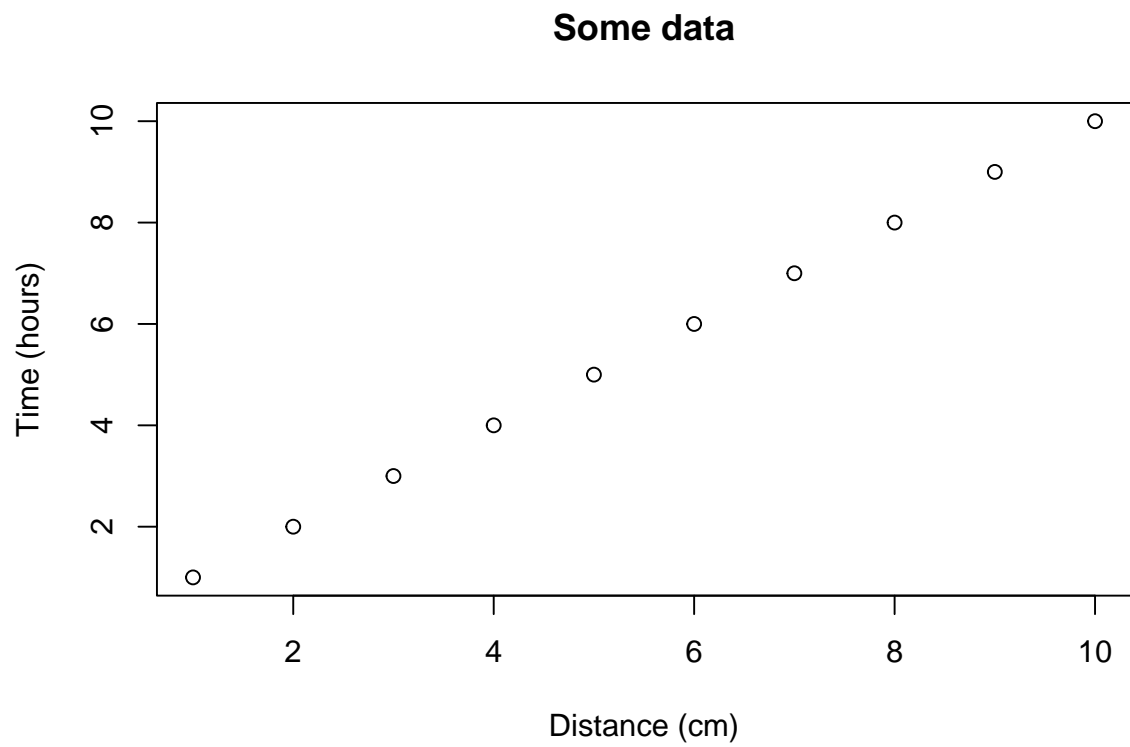


Figure 1: This is the first figure.

You can reference this figure as follows: Fig. 1.

```
plot(1:5, pch = 19, main = "Some data", xlab = "Distance (cm)",  
     ylab = "Time (hours)")
```

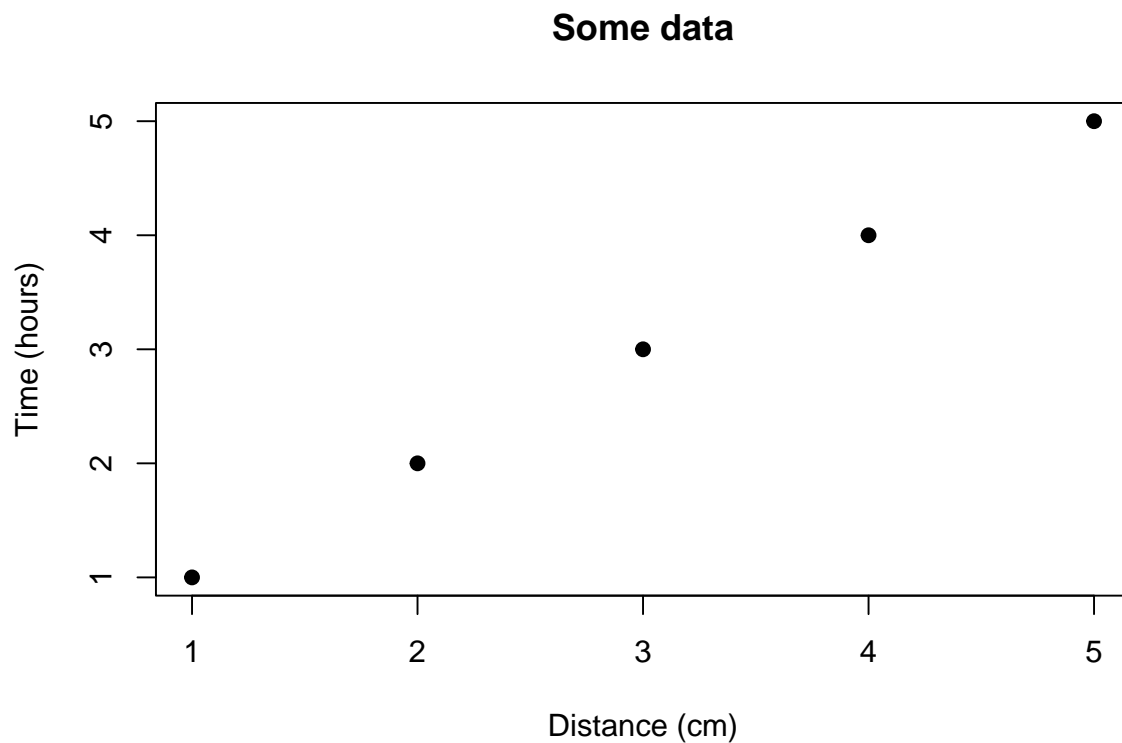


Figure 2: This is the second figure.

Reference to second figure: Fig. [2](#)

### 3.2 Generate a table using xtable.

```
df = data.frame(ID = 1:3, code = letters[1:3])

# Creates tables that follow OUP guidelines using xtable
library(xtable)
print(xtable(df, caption = "This is the table caption",
             label = "tab:tab1"), comment = FALSE)
```

	ID	code
1	1	a
2	2	b
3	3	c

Table 1: This is the table caption

You can reference this table as follows: Table [1](#).

Table 2: This is the table caption

ID	code
1	a
2	b
3	c

### 3.3 Generate a table using kable.

```
df = data.frame(ID = 1:3, code = letters[1:3])

# kable can also be used for creating tables
knitr::kable(df, caption = "This is the table caption", format = "latex",
              booktabs = TRUE, label = "tab2")
```

You can reference this table as follows: Table 2.

## 4 Nombres de los alumnos de PMF (fall 2021).

### 4.1 Grupo 3:00pm.

Diana Jacqueline Soto Alcaraz Hola a todos, que tengan buen inicio de semestre

Juan Pablo Almada Burr- Saludos a todos.

Bernardo Amador Padilla

Christian Contreras Hernández - S.O.S.

Melanie Flores García - Hola Grupo

Luis Fernando Rodríguez Parra HOla, saludos a todos

Diego Valdés Contreras

María Fernanda Rendón Muro

Eugenio Murillo Nader

Adriana Beatriz Santos Monterroza

Oscar David Cortés Gutiérrez

Pompilio Rainiero Amador Sandoval

José Gonzalo Morones Intriago-Saludos!

Andrea Newell Jasso

María Julia Romero Rico

Claudia Michelle de los Ríos Arellano

Salvador Adrián Sánchez Macías

Enrique Gallegos Pateiro

César Alejandro Marroquín Garibay  
Natalia Azcárraga Kuri  
Cecilia Reyes Villarreal  
Ricardo Díaz Ceballos Corral- Saludos! suerte!  
Medardo Chávez Aguilar - Hola a todos!  
Sofía Aitana Salcedo Martínez  
Karina Albarrán Herrera - Hola a todos, buen inicio de semestre.  
César Jacob Linares Murguía  
Edgar Fernández Reynaga  
Marianne Obele Coll  
Emilio Noriega González - Saludos a todo el grupo. . . .  
Allan Alvarado Lozano - Saludos desde Guadalajara  
Lara Hanna Weitgasser - Hola a todos y todas!

## **4.2 Grupo 6:00pm.**

Juan Andrés Castro Moreno

Manuel Alejandro Manríquez Quezada  
Juan Carlos Bocanegra Rivera  
Alejandro Adolfo Pastor Lara- Saludos a todo el grupo!  
Adalberto Vladimir Palomares Ramos  
Diana Angélica Sandoval Ramírez - hola! saludos a todos  
Luis Daniel Puente Flores - Saludos a todos, buen inicio de semestre  
José Ramón Santos Buhl  
Raúl Antonio Valdez Lozano  
Jesús Oscar López Mendoza  
Eduardo Cuesy Saldaña  
Héctor Alejandro Faz Zepeda  
Adriana Sofía Salcido Berumen - ¡Saludos!  
Luis Arturo Payán Quiñones  
Daniela Pizano Chávez- Hola profe, saludos!!!  
David Armando Placencia Aguilar  
Marco Francisco Beltrán Soto - Hola profe, espero que haya tenido un muy buen fin, saludos!  
Román Muñoz Loza Saludos desde Aguascalientes!  
Oscar Ventura Montaña  
Manuel Eduardo Romero Jara  
Juan Francisco Marcial Posas - Hola a todos desde Orizaba  
Jorge Andrés Ángeles Luévano - Saludos desde Chihuahua, Profesor!

Andrés Amílkar Yáñez Frías  
Nicolai Reiners  
Félix Muñoz Rodríguez  
David Villard Linares  
Álvaro Rubio Pina  
Eyleen Lizeth López Cueva-Saludos desde Perú

### 4.3 Task.

Use R code to numerically demonstrate whether the following equation is true:

$$\ln(e) + (\sin^2 x + \cos^2 x) > \sum_{n=0}^{\infty} 1/2^n \quad (3)$$

Write your R code and results here, below the equation 3 and before the conclusion.  
Please include your name.

## 5 Conclusion.

You can cross-reference sections and subsections as follows: Section 2 and Section 2.1.

**Note:** the last section in the document will be used as the section title for the bibliography.

## 6 References.

\*.html

- Carhart, Mark M. 1997. “On Persistence in Mutual Fund Performance.” *The Journal of Finance* 52 (1): 57–82.
- Cochrane, John H. 1996. “A Cross-Sectional Test of an Investment-Based Asset Pricing Model.” *Journal of Political Economy* 104 (3): 572–621.
- . 2009. *Asset Pricing: Revised Edition*. Princeton university press.
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