



Datos personales

Apellidos:
Nombre:
Firma:
Controlado

Número de matrícula

--	--	--	--	--	--	--	--

0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9

Este campo no se debe modificar.

Scrambling

0 0

Tipo

005

Identificación del examen

18010800001

Marque de una forma clara. Ejemplo: ☒ No marcado: ☐ o ☐

Este examen será corregido por un sistema automatizado, por lo que no se ha de arrugar, doblar ni ensuciar la hoja. Para marcar, por favor use un **bolígrafo azul o negro**.

Solo las marcas legibles y bien posicionadas serán evaluadas.

Respuestas 1 - 3

	a	b	c	d	e
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a	b	c	d	e



1. What is the derivative of $f(x) = x^7 e^{3,9x}$, evaluated at $x = 0,61$?
 - a) 3,89
 - b) 5,22
 - c) 4,23
 - d) 6,86
 - e) 3,01

2. A machine fills milk into 200ml packages. It is suspected that the machine is not working correctly and that the amount of milk filled differs from the setpoint $\mu_0 = 200$. A sample of 132 packages filled by the machine are collected. The sample mean \bar{y} is equal to 198,3 and the sample variance s_{n-1}^2 is equal to 63,58.

Test the hypothesis that the amount filled corresponds on average to the setpoint. What is the value of the t test statistic?

 - a) -2,449
 - b) 11,972
 - c) 6,047
 - d) 7,388
 - e) 5,093

3. What is the seat of the federal authorities in Switzerland (i.e., the de facto capital)?
 - a) Vaduz
 - b) Basel
 - c) Geneva
 - d) Lausanne
 - e) Bern

