Universidad de Buenos Aires
Facultad de Derecho

	Exercise Nº	Professor's Name	Mark
Part I	1. Reading Comp. 2. Paraphrasing	…… ……	..../20 ..../30
		Total Part I (Min. 26)	…./**50**
Part II	3. Essay	……	..../50
		Total Part II (Min.26)	…./**50**

CARRERA DE TRADUCTOR PÚBLICO - ENTRANCE EXAMINATION – MAYO 2025 - TEMA 2

NOMBRE y APELLIDO: ……

N.º de ORDEN: (NO es el DNI) ………

Please read the text below carefully and then choose the best answer. Remember: questions do not necessarily follow the order of ideas in the reading passage.

The Mathematics of Love: Patterns and Insights from Hannah Fry

Love, with all its complexities, has long eluded precise understanding. Yet, mathematician Hannah Fry argues that even this enigmatic human experience can benefit from a mathematical perspective. In her book The Mathematics of Love, Fry explores how patterns, equations, and algorithms can provide valuable insights into the search for romantic connection. Far from replacing the poetry of love, her work seeks to enhance our understanding through the lens of mathematics, uncovering truths that might otherwise remain obscured.

Fry begins with a candid confession: she is not an expert in love. Without a background in psychology or biology, her qualifications lie in mathematics and its application to human behavior. Her goal is to demonstrate how mathematics, often viewed as cold and detached, can reveal the hidden patterns that govern our lives, even in the realm of romance. Fry's approach reflects a broader mission—to challenge negative perceptions of mathematics and showcase its relevance and beauty.

One of Fry's most notable explorations involves the work of mathematician Peter Backus, who calculated the probability of finding a suitable romantic partner using a formula originally designed to estimate the existence of intelligent extraterrestrial life. Backus's adaptation of the Drake equation provides an illustrative example of how mathematics can offer unexpected insights. By breaking down his criteria for a potential partner into smaller components, such as age, education level, and mutual attraction, Backus concluded that only 26 women in London met his standards. This seemingly disheartening result highlights how overly stringent criteria can limit opportunities, Let us consider Backus's simplified version of the Drake equation, where he considered the total population in, say, London; a fraction meeting the desired age range; a fraction with the desired education level; and a fraction with mutual attraction. This way, he calculated the estimated number of likely future partners.

Fry encourages readers to reevaluate their own standards and adopt a more open-minded approach. By loosening some of his criteria, Backus could have increased his chances of finding love significantly. Fry emphasizes that while personal preferences are natural, overly rigid expectations can create unnecessary barriers. Her observations align with a broader truth: love often defies neat categorization and thrives in unexpected places.

The book also delves into strategies for navigating social situations, such as parties or dating events. One chapter presents a mathematical justification for taking an active approach to meeting new people. Fry explains that individuals who approach others at social gatherings tend to fare better than those who wait to be approached. This insight, supported by mathematical modeling, underscores the importance of initiative in romantic endeavors.

Fry's exploration of love extends beyond the search for a partner to the dynamics of long-term relationships. She examines the role of compromise, communication, and adaptability, drawing on data and mathematical models to illuminate the factors that contribute to lasting partnerships. By analyzing real-life couples and abstract scenarios, Fry uncovers patterns that can enligthen both singles and those in committed relationships.

Another intriguing aspect of Fry's work is her analysis of decision-making strategies in romantic contexts. She explores the concept of optimal stopping, a mathematical principle that offers guidance on when to commit to a choice—be it an apartment, a job, or a romantic partner. Applying this theory, Fry demonstrates how individuals can maximize their chances of success by balancing exploration with decisiveness. Such strategies not only apply to love but also to broader life decisions, such as getting married -or getting divorced-, showcasing the versatility of mathematical thinking.

A key theme of Fry's work is the universality of mathematical principles. Whether analyzing the growth of cities, predicting weather patterns, or understanding the behavior of subatomic particles, mathematics excels at revealing patterns in seemingly chaotic systems. Fry's decision to apply these principles to love underscores her belief in the power of mathematics to shed light on even the most elusive aspects of human experience.

Fry's journey to writing The Mathematics of Love began with a TEDx talk that gained unexpected popularity. Her goal was to choose a topic as far removed from mathematics as possible to demonstrate its versatility. Fry's writing is characterized by a lighthearted and humorous tone, yet her underlying message is insightful: mathematics has the potential to offer fresh perspectives on any subject, even one as deeply personal as love.

The book's structure mirrors the stages of a romantic relationship, guiding readers from the initial search for a partner to the complexities of sustaining a lifelong connection. Along the way, Fry introduces mathematical concepts in accessible and engaging ways, ensuring that readers gain both practical advice and a deeper appreciation for the subject.

Ultimately, The Mathematics of Love is a celebration of both mathematics and human connection. While Fry acknowledges that love cannot be reduced to equations, she demonstrates that a mathematical lens can enrich our understanding and appreciation of its many facets. Her optimism shines through in her assertion that love is not about finding a perfect match but about embracing possibilities and remaining open to the unexpected. By viewing love through the patterns it creates, Fry offers readers not only a new way to think about relationships but also a newfound respect for the beauty and relevance of mathematics.

Student's Name: Nº de Orden:
(GGK0291)

PART I (Minimum Passing Mark: 26 points) PAPER1

1. READING COMPREHENSION (2 points each)

1. Fry claims that love can be fully explained through mathematical equations.
    A. True
    B. False
    C. Not stated

2. How does Fry use Peter Backus's adaptation of the Drake equation to illustrate her points about finding love?
    A. By proving that mathematical equations may prove to be better than intuition in finding love.
    B. By highlighting the rarity of finding love in large cities like London.
    C. By demonstrating that mathematics can predict love with some accuracy.
    D. By showing how unrealistic expectations can limit romantic opportunities.
    E. B and D are correct.
    F. A and C are correct.

3. Fry argues that mathematics can reveal patterns and explain the nature of love.
    A. True
    B. False
    C. Not stated

4. Fry's book dismisses the significance of emotions in human relationships.
    A. True
    B. False
    C. Not stated

5. According to Fry, what is the advantage of taking an active approach at social events?
    A. It increases one's visibility, making it easier to attract attention.
    B. It aligns with mathematical models showing that initiative improves outcomes.
    C. It cuts down on the time spent waiting for others to make the first move.
    D. All of the above.
    E. None of the above.

6. What is the primary objective of Hannah Fry's book, *The Mathematics of Love*?

    A. To replace the emotional aspects of love with mathematical models.
    B. To showcase how mathematical principles can boost our understanding of love.
    C. To teach readers how to use algorithms to find their perfect match.
    D. To criticize traditional views on romance from a scientific standpoint.
    E. All of the above.
    F. None of the above.

7. How does Fry's mathematical perspective challenge traditional views on love?
    A. By suggesting that love is a purely emotional experience.
    B. By proving that mathematical algorithms can guarantee romantic success.
    C. By suggesting that love can be understood and improved through patterns and data.
    D. By undermining the role of emotions in romantic relationships.
    E. All of the above.
    F. None of the above.

8. How does the author generally perceive Fry's work?
    A. As a profound and optimistic exploration of mathematics' relevance.
    B. As an entertaining yet impractical application of mathematics.
    C. As a critical attack on traditional romantic ideals.
    D. As a niche academic study with unlimited applicability.

9. What does the phrase "*optimal stopping*" refer to?
    A. The optimal moment to end a long-term relationship.
    B. The mathematical principle guiding whether or not to buy an apartment, start a job, or start dating.
    C. The mathematical strategy of coming up with the best decision based on calculations.
    D. The idea that decisions should always be put off until perfect information is available.
    E. B and C are correct.
    F. None of the above.

10. What is the main aim of the article?
    A. To challenge conventional dating advice.
    B. To argue that mathematics is superior to other sciences in studying emotions.
    C. To provide a comprehensive guide to mathematical dating strategies.
    D. To explore Fry's use of mathematics as a tool to understand love and human relationships.
    E. A and C are correct.
    F. B and D are correct.

2. USE OF ENGLISH: PARAPHRASING (3 points each)

Use the given beginnings and/or words.
DO NOT change the meaning. There is no limit to the number of words you can write.

1. Hannah's goal is to deepen our understanding through the lens of mathematics, revealing obscured truths at the same time.

RESULT (use it as a verb)

Hannah's pursuit for_____

_____

2. Love has always eluded clear comprehension. Yet, Hannah Fry argues that this enigmatic human experience can benefit from a mathematical perspective.

ADVANTAGE

However _____

_____ of a mathematical perspective.

3. Backus failed to loosen some of his criteria, so he did not significantly increase his chances of finding love. (Use the phrasal verb "come across" in the right form)

ODDS

Backus could_____

_____

4. If a reader seeks to increase the likelihood of finding a partner, what Fry highly encourages him to do is to rethink his standards and adopt a more open-minded approach.

SO AS

According to Fry, it is recommended that _____

_____

5. Narrowing down your criteria when choosing a partner significantly reduces your potential matches.

INCREASE

Should _____

_____

6. Fry candidly confesses: "I am not an expert in love and I'm sorry for that"

Fry regrets _____

_____

7. Mathematical thinking strategies not only apply to love but also to broader life decisions, showcasing the versatility of the method.

APPLIED

Such _____

_____as well as to broader life decisions.

8. While personal preferences are natural, overly rigid expectations can create unnecessary barriers. (Do not use "the fact that") (Use a PASSIVE VOICE CONSTRUCTION)

Despite_____

_____ overly rigid expectations.

9. Love as a means to finding a perfect match? That´s not the way to see it.

Under no circumstances _____

_____

10. It was her blend of humor and insight that resonated with audiences and led to the publication of her book.

Had it _____

_____

PART II

3. ESSAY WRITING (<u>350 words in total, ± 10%</u>)

Write an essay on **<u>ONE</u>** of the topics below:

Credit will be given to an orderly presentation and clear handwriting

(A) **<u>Opinion Essay:</u>** When you truly love someone, you accept and even embrace his/her flaws, strengths, individuality and personality traits. Do you agree with this statement? Support your argument with your own perspective.

(B) **<u>For and Against Essay</u>:** Discuss the advantages and limitations of applying mathematical principles to understand, predict and improve romantic relationships, as illustrated in *The Mathematics of Love*.

Make sure you include:

- Complex structures (inversion of order, conditionals, passive voice, correct linkers)
- Relevant, topic-related vocabulary
- Meaningful and clear ideas to support your points/arguments
- Well-ordered and cohesive paragraphs

<u>START YOUR ESSAY HERE</u> ↓↓

_____

_____

_____

_____

_____

Student's Name: Nº de Orden:
(GGK0291)

Students write **HERE** …… your total word count

DO NOT WRITE HERE! FOR TEACHERS' USE ONLY. Tick all the appropriate boxes below:

Poor/Inaccurate use of structures requested		Spelling mistakes	
Poor use of language/grammar		Punctuation mistakes	
Lack of Cohesion / Coherence		Poor contents/ poor ideas	
TOTAL MARK: ……/50 (Minimum Passing Mark 26)			

Student's Name: Nº de Orden:
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DRAFT (You may use this draft to write preliminary ideas or notes. It must be handed in, but it will not be corrected)

Universidad de Buenos Aires
Facultad de Derecho

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CARRERA DE TRADUCTOR PÚBLICO - ENTRANCE EXAMINATION – MAYO 2025 - TEMA 1

NOMBRE y APELLIDO: …….

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Love, with all its complexities, has long eluded precise understanding. Yet, mathematician Hannah Fry argues that even this enigmatic human experience can benefit from a mathematical perspective. In her book The Mathematics of Love, Fry explores how patterns, equations, and algorithms can provide valuable insights into the search for romantic connection. Far from replacing the poetry of love, her work seeks to enhance our understanding through the lens of mathematics, uncovering truths that might otherwise remain obscured.

Fry begins with a candid confession: she is not an expert in love. Without a background in psychology or biology, her qualifications lie in mathematics and its application to human behavior. Her goal is to demonstrate how mathematics, often viewed as cold and detached, can reveal the hidden patterns that govern our lives, even in the realm of romance. Fry's approach reflects a broader mission—to challenge negative perceptions of mathematics and showcase its relevance and beauty.

One of Fry's most notable explorations involves the work of mathematician Peter Backus, who calculated the probability of finding a suitable romantic partner using a formula originally designed to estimate the existence of intelligent extraterrestrial life. Backus's adaptation of the Drake equation provides an illustrative example of how mathematics can offer unexpected insights. By breaking down his criteria for a potential partner into smaller components, such as age, education level, and mutual attraction, Backus concluded that only 26 women in London met his standards. This seemingly disheartening result highlights how overly stringent criteria can limit opportunities, Let us consider Backus's simplified version of the Drake equation, where he considered the total population in, say, London; a fraction meeting the desired age range; a fraction with the desired education level; and a fraction with mutual attraction. This way, he calculated the estimated number of likely future partners.

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    C. To teach readers how to use algorithms to find their perfect match.
    D. To criticize traditional views on romance from a scientific standpoint.
    E. All of the above.
    F. None of the above.

5. Fry's book dismisses the significance of emotions in human relationships.
    A. True
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6. According to Fry, what is the advantage of taking an active approach at social events?
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ADVANTAGE

However _____

_____ of a mathematical perspective.

2. Backus failed to loosen some of his criteria, so he did not significantly increase his chances of finding love. (Use the phrasal verb "come across" in the right form)

ODDS

If Backus_____

_____

3. Hannah´s goal is to deepen our understanding through the lens of mathematics, revealing obscured truths at the same time.

WHILE

What Hanna _____

_____

4. Fry candidly confesses: "I am far from considering myself an expert in love."

ADMITS TO

Fry_____

5. If a reader seeks to increase the likelihood of finding a partner, what Fry highly encourages him to do is to rethink his standards and adopt a more open-minded approach.

SO AS

According to Fry, it is recommended that _____

_____

6. Narrowing down your criteria when choosing a partner significantly reduces your potential matches.

INCREASE

Should _____

_____

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_____ overly rigid expectations.

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So_____

_____as well as to broader life decisions.

9. It was her blend of humor and insight that resonated with audiences and led to the publication of her book.

Had her blend _____

_____

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Under no circumstances _____

_____

PART II

3. ESSAY WRITING (<u>350 words in total, ± 10%</u>)

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<u>START YOUR ESSAY HERE</u> ↓↓

_____

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_____

_____

Student's Name: Nº de Orden:
(GGK0291)

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