**Savithri Math for Mothers : Development and Globalization using AI.**

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**Abstract:**

Mathematics has an important role in the development of science and technology. Making mothers confident in mathematics(math) will contribute to national growth and well being. Here we conceive a course which presents mathematics within a spiritual background since mathematical competence is to be considered as a spiritual value.The spiritual background is to be provided by Savithri, a legendary work by Aruobindo. Mathematical content are based on Lilavati (an ancient Indian text presenting math in puzzle-poems) and books of Skantula Devi (an Indian mental calculator and writer of popular books on math for the public).We show how brief introduction about these works can be got through chatGPT. Course lesson plans are generated using AI tools. The course is to be offered in other languages in Hindi,Tamil and French. We highlight how AI tools help rapid development and globalization of such a course.

**Introduction :**

The aim is to develop an online course on math for mothers with a spiritual perspective .The spiritual perspective is provided by **“Savitri”** a legendary work by Aruobindo. The mathematical content is based on Bhaskaracharya’s Lilavati and Shakuntaladevi's book on maths.We highlight how AI Tools help us to develop the course and Globalize it.

**Section 1 : Introduction to “Savitri”**



Source:wikipedia

**Section 1 A: In English**

ChatGPT

Savitri" is a poetic and philosophical work by Sri Aurobindo Ghose, an Indian philosopher, poet, and spiritual leader. It is considered one of his most significant literary and spiritual contributions. The poem, published in 1950, is an epic in blank verse and comprises 12 books with a total of over 24,000 lines. It draws inspiration from the Indian epic tradition and is known for its profound exploration of spiritual and metaphysical themes.

The central theme of "Savitri" revolves around the spiritual evolution of the human soul and the ultimate destiny of humanity. It's a deeply philosophical and metaphysical work that delves into various aspects of human existence, consciousness, and the journey towards self-realization. Here are some key themes in "Savitri" by Sri Aurobindo:

1. **The Divine and Human Consciousness**: At its core, "Savitri" explores the relationship between human consciousness and the Divine or the Cosmic Consciousness. The poem describes the journey of Savitri, a mortal woman, who transcends her human limitations to unite with the divine consciousness. This theme reflects Aurobindo's belief in the potential for divinity within every individual.

2. **The Quest for Immortality**: Savitri's quest for immortality is not merely about physical immortality but rather the pursuit of spiritual immortality or liberation from the cycle of birth and death. The poem reflects Aurobindo's spiritual philosophy, which emphasizes the transformation of human consciousness to achieve spiritual liberation.

3. **Love and Devotion**: Love plays a significant role in the poem. Savitri's love for Satyavan is unwavering and serves as a symbol of the human soul's longing for union with the Divine. It explores the idea that true love can be a path to spiritual realization.

4. **The Power of the Spirit**: "Savitri" highlights the idea that the spirit or consciousness can overcome even the darkest challenges and adversities. Savitri's determination and spiritual strength enable her to confront and conquer death itself.

5. **The Evolution of Consciousness**: Aurobindo believed in the evolution of consciousness and saw humanity's role as a participant in this evolutionary process. "Savitri" portrays the human journey as part of this cosmic evolution towards a higher state of consciousness.

6. **The Role of the Divine Mother**: Aurobindo's spiritual teachings often emphasize the concept of the Divine Mother, a feminine aspect of the Divine. "Savitri" reflects this concept, as Savitri embodies the qualities of the Divine Mother in her quest for spiritual transformation.

7. **The Interplay of Light and Darkness**: Throughout the poem, there is an exploration of the interplay between light and darkness, good and evil, and the eternal struggle between these opposing forces in the human psyche and the world.

In summary, "Savitri" by Sri Aurobindo is a profound and spiritually rich epic poem that explores the journey of the human soul toward self-realization and union with the Divine. It touches upon themes of love, consciousness, immortality, and the transformative power of the spirit. It remains a significant work in the realm of Indian philosophy and spirituality.

Now we look at the possibility of globalization.

**Section 1 B: In Tamil**

give the same reply in tamil

ChatGPT

"Savitri" என்று அழைக்கப்படும் படிகள் மற்றும் தத்துவ கூட்டமான இந்திய ஆராய்ச்சி, கவிஞர், கட்டுரையாளர் மற்றும் ஆத்திசேஷி ஸ்ரீ அரவிந்தோ கோஷ் அவர்களால் எழுதப்பட்டுள்ள பேராண்மய கவிதையாகும். இந்த கவிதை, அவரின் அதிசய உரையாடலும் ஆத்திசமான தத்துவ அனுபவங்களை வெளிப்படுத்துகின்றது. இது இந்திய பேராண்மை கதைகளின் ஒரு முக்கிய பங்காளி என்றும் அறிகின்றது.

"Savitri" என்ற கவிதையின் முழுமையான தீமம் மனித ஆன்மாவின் ஆத்ம அறிவின் திருப்தியை பின்பற்றுகின்றது மற்றும் மனித மாநகரின் அதிசய கட்டுப்பாட்டை பற்றி. இது ஆதிசமானது ஆதிசமான உணர்வுகள், உணர்வாக்குகள், மற்றும் செய்கிற மூழ்கின்ற உணர்வாக்குகளை பற்றி ஆத்திசமானவர் ஸ்ரீ அரவிந்தோ கோஷ் கொண்டுள்ளனர்.

இங்கே, ஸ்ரீ அரவிந்தோ ஸ்ரீ அரவிந்தோ இயக்கத்தின் முக்கிய தீமங்களை கொண்டு சொல்லப்பட்டுள்ளது:

1. **தேவரும் மனித உணர்வும்**: அதிசமான "Savitri" உள்ளடக்கத்தின் மைய தத்துவம் மனித உணர்வும் பரம தேவரும் இடையே உள்ள அன்பு பற்றி உடையது. கவிதை பின்பற்றுகின்றது போல, சாவித்ரி, ஒரு மரணமின்மை பெண், அவளின் மனித விரசாதங்களை அதிசமான உணர்வாக்குகின்றார்.

2. **அமர்ந்துவிப்பதற்கான விரும்பம்**: சாவித்ரி அமர்ந்துவிப்பதற்கான விரும்புகை அதிசமான தத்துவம் அல்லாத பொலிவு அமர்ந்துவிப்பதற்கான புரியாத வரைபாட்டு அல்ல. கவிதை மனித உணர்வை அதிசமான உணர்வாக்குகின்றது, அதிசமான அல்லாத மூல உணர்விலிருந்து விடுதலை அல்லாத மாற்றம் அல்லது பிற மார்க்கங்களிலிருந்து முடிந்திருக்கும் முதுகுணத்தை பிரதிபலிக்கின்றது.

3. **காதலும் பரமான்பும்**: கவிதையில் காதல் அதிசமான பாதையாக போகின்றது. சாவித்ரி ஸத்யவனுக்கு அனிமித காதல் உண்டு மற்றும் அது உணர்வு உடையதை போல, உணர்வு முடிவு கிடைக்கும் வழியாக பிரதிபலிக்கின்றது.

4. **ஆத்மாவின் சக்தி**: "Savitri" கவிதை விளக்கப்படும் அந்திம சங்கடங்களை முடித்து வெல்லுவது ஆத்மாவின் சக்தி அல்லாத பிரதியேக சம்பத்தை அதிசமான அந்திம சங்கடங்கள் அனைத்திலும் அதிசமான அனுபவமாக அமைக்கின்றது.

5. **உணர்வின் மட்டையணி**: ஸ்ரீ அரவிந்தோ உணர்வின் மட்டையணியாக போகின்றனர் மற்றும் மனித உணர்வு மனித சுழற்சியில் பங்காளியாக அமையும் என்பதை விளக்குகின்றது. "Savitri" அதிசமான உணர்வுகளின் பக்கத்தில் மனித உணர்வின் பயணம் மற்றும் உயிர்மெய்யும் பக்கங்களை அளிக்கின்றது.

6. **தியானத் திருப்தி**: ஸ்ரீ அரவிந்தோ தியானத் திருப்தியின் மஹத்தர உரையாடலை அளித்திருக்கின்றது. "Savitri" சாவித்ரி சாய்தவனை எந்திரியிட்டு அமைத்தார், அது உணர்வின் ஒரு பாதை ஆக இருக்கும் என்பதை விளக்கின்றது.

7. **ஒளியும் அழியும் அருகிலுள்ள ஒட்டன்படல்**: கவிதையின் முக்கிய உட்பொருளும் கோபமும், கிருத்திக்காலங்களும், மனித மனதில் மற்றும் உலகத்தில் இவ்வுற்றிகளின் இடையே இருக்கும் அபிமுக்தி மற்றும் விரித்திகளுக்கு வரை பிரபலமானது.

சம்ப்ரம்பத்தில், "Savitri" ஸ்ரீ அரவிந்தோ கோஷ் இந்திய தத்துவம் மற்றும் ஆத்திசமானதை பற்றி ஆழமான மற்றும் ஆத்திசமான கவிதையாக காணப்படுகின்றது.

**Section 1 C : In French**

give the same theme in french

ChatGPT

"Savitri" est une œuvre poétique et philosophique de Sri Aurobindo Ghose, un philosophe, poète et leader spirituel indien. Elle est considérée comme l'une de ses contributions littéraires et spirituelles les plus importantes. Le poème, publié en 1950, est une épopée en vers blancs et se compose de 12 livres totalisant plus de 24 000 vers. Il puise son inspiration dans la tradition épique indienne et est célèbre pour son exploration profonde de thèmes spirituels et métaphysiques.

Le thème central de "Savitri" tourne autour de l'évolution spirituelle de l'âme humaine et du destin ultime de l'humanité. Il s'agit d'une œuvre profondément philosophique et métaphysique qui explore divers aspects de l'existence humaine, de la conscience et du voyage vers la réalisation de soi. Voici quelques thèmes clés de "Savitri" de Sri Aurobindo :

1. **La Conscience Divine et Humaine** : Au cœur de "Savitri", on trouve la relation entre la conscience humaine et la Divine ou la Conscience Cosmique. Le poème décrit le voyage de Savitri, une femme mortelle, qui transcende ses limitations humaines pour s'unir à la conscience divine. Ce thème reflète la croyance d'Aurobindo en la potentialité de la divinité en chaque individu.

2. **La Quête de l'Immortalité** : La quête de l'immortalité de Savitri ne concerne pas seulement l'immortalité physique, mais plutôt la poursuite de l'immortalité spirituelle ou de la libération du cycle de la naissance et de la mort. Le poème reflète la philosophie spirituelle d'Aurobindo, qui met l'accent sur la transformation de la conscience humaine pour atteindre la libération spirituelle.

3. **L'Amour et la Dévotion** : L'amour joue un rôle significatif dans le poème. L'amour de Savitri pour Satyavan est inébranlable et sert de symbole du désir de l'âme humaine de s'unir à la Divine. Il explore l'idée que le véritable amour peut être un chemin vers la réalisation spirituelle.

4. **La Puissance de l'Esprit** : "Savitri" met en évidence l'idée que l'esprit ou la conscience peut surmonter même les défis les plus sombres et les adversités. La détermination et la force spirituelle de Savitri lui permettent de confronter et de vaincre la mort elle-même.

5. **L'Évolution de la Conscience** : Aurobindo croyait en l'évolution de la conscience et voyait le rôle de l'humanité comme participant à ce processus évolutif cosmique. "Savitri" dépeint le voyage humain comme faisant partie de cette évolution cosmique vers un état supérieur de conscience.

6. **Le Rôle de la Mère Divine** : Les enseignements spirituels d'Aurobindo mettent souvent en avant le concept de la Mère Divine, un aspect féminin de la Divinité. "Savitri" reflète ce concept, car Savitri incarne les qualités de la Mère Divine dans sa quête de transformation spirituelle.

7. **L'Interaction de la Lumière et des Ténèbres** : Tout au long du poème, on explore l'interaction entre la lumière et les ténèbres, le bien et le mal, et la lutte éternelle entre ces forces opposées dans la psyché humaine et dans le monde.

En résumé, "Savitri" de Sri Aurobindo est une œuvre épique profonde et spirituellement riche qui explore le voyage de l'âme humaine vers la réalisation de soi et l'union avec la Divine. Il aborde des thèmes tels que l'amour, la conscience, l'immortalité et le pouvoir transformateur de l'esprit. Il demeure une œuvre importante dans le domaine de la philosophie et de la spiritualité indiennes.

**Section 2: Bhaskaracharya’s Lilavati**

Lilavati is a book on mathematics written by Bhaskaracharya . The book presents mathematics in the form of puzzles in the form of poems.

**Section 2 A: Introduction to Book**

Bhaskaracharya's Lilavati Book

Default (GPT-3.5)

User

Give a brief explanation about the book Lilavati by Bhaskaracharya, Indian mathematician.

ChatGPT

"Lilavati" is a historic mathematical treatise written by the Indian mathematician Bhaskaracharya, also known as Bhaskara II, around the 12th century. The book is named after his daughter, Lilavati. It covers a wide range of mathematical topics, including arithmetic, algebra, geometry, and more.

One of the notable aspects of "Lilavati" is its use of storytelling and poetic language to present mathematical concepts. It includes problems and solutions related to areas like number theory, equations, and geometric shapes. Bhaskaracharya's work was influential in the development of mathematics in India and had a lasting impact on the field.

**Section 2 B: Poems ( Puzzles)**

User

Give one example verse with explanation

ChatGPT

Certainly! Here's an example verse from Bhaskaracharya's "Lilavati" along with an explanation:

Verse: "द्वे गुणे त्रीणि कर्माणि द्वादशानि द्वे च गुणे।

पञ्चानि च द्वे गुणे च द्वे च द्वे गुणे पञ्च करोति।।"

Explanation: This verse deals with multiplication and provides a method for multiplying numbers efficiently. It can be translated as follows:

"When you multiply two by three, you get six. When you multiply twelve by two, you get twenty-four. When you multiply five by two, and again by two, you get twenty."

The verse essentially conveys multiplication techniques. For instance, to calculate 2 multiplied by 3, Bhaskaracharya suggests you can think of it as multiplying 12 by 2 and then doubling the result, which is indeed 6. This method simplifies multiplication and showcases the mathematical ingenuity present in "Lilavati."

User

Verse about verse about pearls in a necklace.

ChatGPT

Certainly! Here's a verse from Bhaskaracharya's "Lilavati" that uses pearls in a necklace as an analogy:

Verse (in Sanskrit): "मुक्तामणिसमानः स्त्रीरत्नेषु मणिर्भाग्यरागिणी।

जायापुत्रादिसङ्ख्याकाः स्वगुणाः सन्ति कथ्यते।।"

Explanation: This verse employs the metaphor of pearls in a necklace to explain a mathematical concept. Translated, it means:

"A woman, resembling a pearl in a necklace of gems, has a son. The numbers of her husband, son, and herself are such that they form a beautiful pattern."

In this verse, Bhaskaracharya uses poetic imagery to describe relationships between numbers, likely involving factors, multiples, or mathematical patterns, which was a common approach in ancient Indian mathematical texts like "Lilavati."

User

Verse about counting pearls of a broken necklace.

ChatGPT

I'm sorry, but I couldn't find a specific verse from Bhaskaracharya's "Lilavati" that mentions counting pearls of a broken necklace. The book primarily focuses on mathematical concepts and problem-solving techniques rather than narratives or analogies involving jewelry. If you have any other requests or questions related to the book or mathematics in general, please feel free to ask!

We ask the same questions with the other version of ChartGPT

Default (GPT-3.5)

poem on counting pearls of broken neckless in book lilavati by bhaskaracharya

ChatGPT

I'm sorry, but there doesn't appear to be a specific poem about counting pearls of a broken necklace in the book "Lilavati" by Bhaskaracharya. "Lilavati" is a mathematical treatise written by the Indian mathematician Bhaskaracharya in the 12th century, and it primarily focuses on mathematical concepts and calculations, not poetry.

However, I can certainly create a poem inspired by the themes of mathematics and precision found in Bhaskaracharya'sII work. Here's a poem that captures the spirit of mathematical inquiry:

In the realm of numbers, we shall explore, Where Bhaskaracharya's wisdom did pour. "Lilavati" the tome, his gift to all, A mathematical journey, both great and small.

Counting pearls, like equations we unravel, With precision and care, we seek to travel. Broken necklaces, problems to be solved, In mathematical mysteries, we're all involved.

Each pearl a digit, a gem in its own right, In the world of numbers, they shine so bright. With rules and theorems, we calculate with grace, In the realm of mathematics, we find our place.

So let us delve into this world so vast, Where Bhaskaracharya's legacy will forever last. In "Lilavati's" pages, we'll always find, The beauty of math, the human mind's bind.

We Tried Bing:

In any event, Bhaskara’s exercises excite a real passion for mathematics. Who, but one with an adamantine heart, can resist the call of a verse such as this:

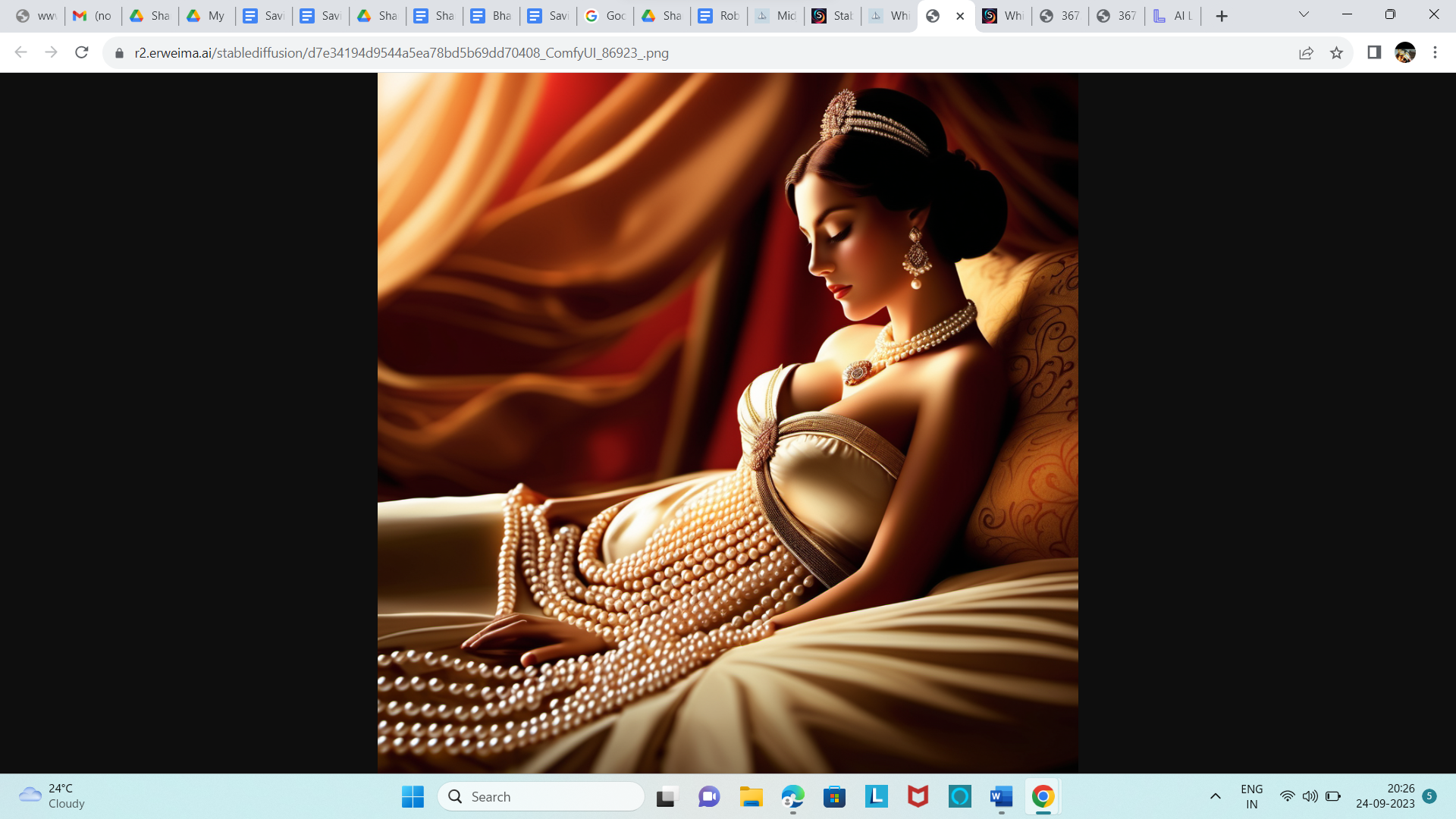
*Whilst making love a necklace broke.  
A row of pearls mislaid.  
One third fell to the floor.  
One fifth upon the bed.  
The young woman saved one sixth of them.  
One tenth were caught by her lover.  
If six pearls remained upon the string  
How many pearls were there altogether?*

Note: The above is not from the *Lilavati* per se. It’s from the *Manoranjana*, a commentary written by one Ramakrishna Deva. Colebrooke spotted its connection with Bhaskara’s Problem 3.2.54 and decided to– god bless him– footnote it.

*Lilavati* is not exactly Aguilera-dirrty. Problems involving randy geese, bees trapped in lotuses, girls with tremulous eyes and so on are, I’m sorry to report, relatively few in number. One of the problems [3.6.75] is downright chilling:

Source : :[Say, lovely woman, the number of bees: Bhaskara’s Lilavati | Anil Menon](https://anilmenon.com/say-lovely-woman-the-number-of-bees-bhaskaras-lilavati/).

Image created by midjourney AI for the poem on pearls,



**Solution:**

(1/3+⅕ +⅙ +1/10)x+6=x

60(⅓+⅕+⅙+1/10)x+6\*60=60x

(20+12+10+6)x+360=60x

48x+360=60x

360=60x-48x

360=12x

360/12=x

30=x

There are 30 pearls in the necklace.

**Section 3 : Shakunthala Devi  
  
Section 3 A: Introduction to Shakunthala Devi**

Default (GPT-3.5)

User

Give a brief introduction about Shakuntala devi

ChatGPT

Shakuntala Devi, often referred to as the "Human Computer," was an Indian mathematician and mental calculator. She was born on November 4, 1929, in Bangalore, India, and passed away on April 21, 2013. Shakuntala Devi was renowned for her exceptional ability to perform complex mathematical calculations mentally, earning her a place in the Guinness Book of World Records. She achieved fame for her remarkable mathematical talents and contributed significantly to popularizing mathematics in India and around the world through her performances and books.

**Section 3 B: Joy of numbers**

User

Give a brief about her book joy of numbers

ChatGPT

Shakuntala Devi's book titled "The Joy of Numbers" is a popular mathematics book that aims to make mathematics more accessible and enjoyable for readers. Published in 1965, the book is designed to help people of all ages and backgrounds develop a deeper appreciation for mathematics. It covers a wide range of mathematical topics, from basic arithmetic to more advanced concepts, all presented in a clear and engaging manner.Through "The Joy of Numbers," Shakuntala Devi intended to inspire readers to embrace mathematics as an enjoyable and intellectually stimulating subject, dispelling common fears or misconceptions associated with math. The book became a classic in the field and contributed to her reputation as a math prodigy and educator.

User

Give one example puzzle given by her and her solution method

ChatGPT

One famous puzzle presented by Shakuntala Devi is known as the "perfect square" puzzle. Here's an example along with her solution method:

Puzzle: Find the smallest perfect square that ends with the digits 2225.

Solution Method:

First, observe that the last two digits of a perfect square can only be one of the following: 00, 01, 04, 09, 16, 21, 24, 25, 29, 36, 41, 44, 49, 56, 61, 64, 69, 76, 81, or 84.

We need to find the smallest perfect square ending with 2225. To do this, we can try different perfect squares by adding the above-listed numbers to 2225 and see if any of them result in a perfect square.

Start with the smallest number, 00. Add it to 2225, giving 2225 + 00 = 2225.

The next smallest number is 01. Add it to 2225, giving 2225 + 01 = 2226, which is not a perfect square.

Continue this process until you find the smallest number that, when added to 2225, results in a perfect square.

By following this method, you will eventually find that the smallest perfect square ending with 2225 is 4942225, which is equal to 2225^2. This is the solution to the puzzle.

There is an error in the above analysis.

**Section 3 C: Puzzles**

Math Puzzles and Solutions

Default (GPT-3.5)

User

Give 5 puzzles given by Shankutala devi with solutions and explanations

ChatGPT

I can provide you with five mathematical puzzles along with solutions and explanations. These are not necessarily puzzles from Shakuntala Devi, but they are interesting mathematical challenges:

The Age Puzzle:

Problem: A father is 4 times as old as his son. In 20 years, he will be 2 times as old as his son. What are their current ages?

Solution: Let the son's age be S and the father's age be F. You have two equations:

F = 4S

F + 20 = 2(S + 20)

Solve these equations to find S = 10 and F = 40.

The Train Puzzle:

Problem: Two trains, 150 miles apart, are moving towards each other at 50 mph each. A fly starts from one train and flies towards the other at 75 mph. When the two trains collide, how far has the fly traveled?

Solution: The trains are approaching each other at a combined speed of 50 + 50 = 100 mph. So, it takes 150 miles / 100 mph = 1.5 hours for them to collide. The fly travels at 75 mph for 1.5 hours, covering a distance of 75 \* 1.5 = 112.5 miles.

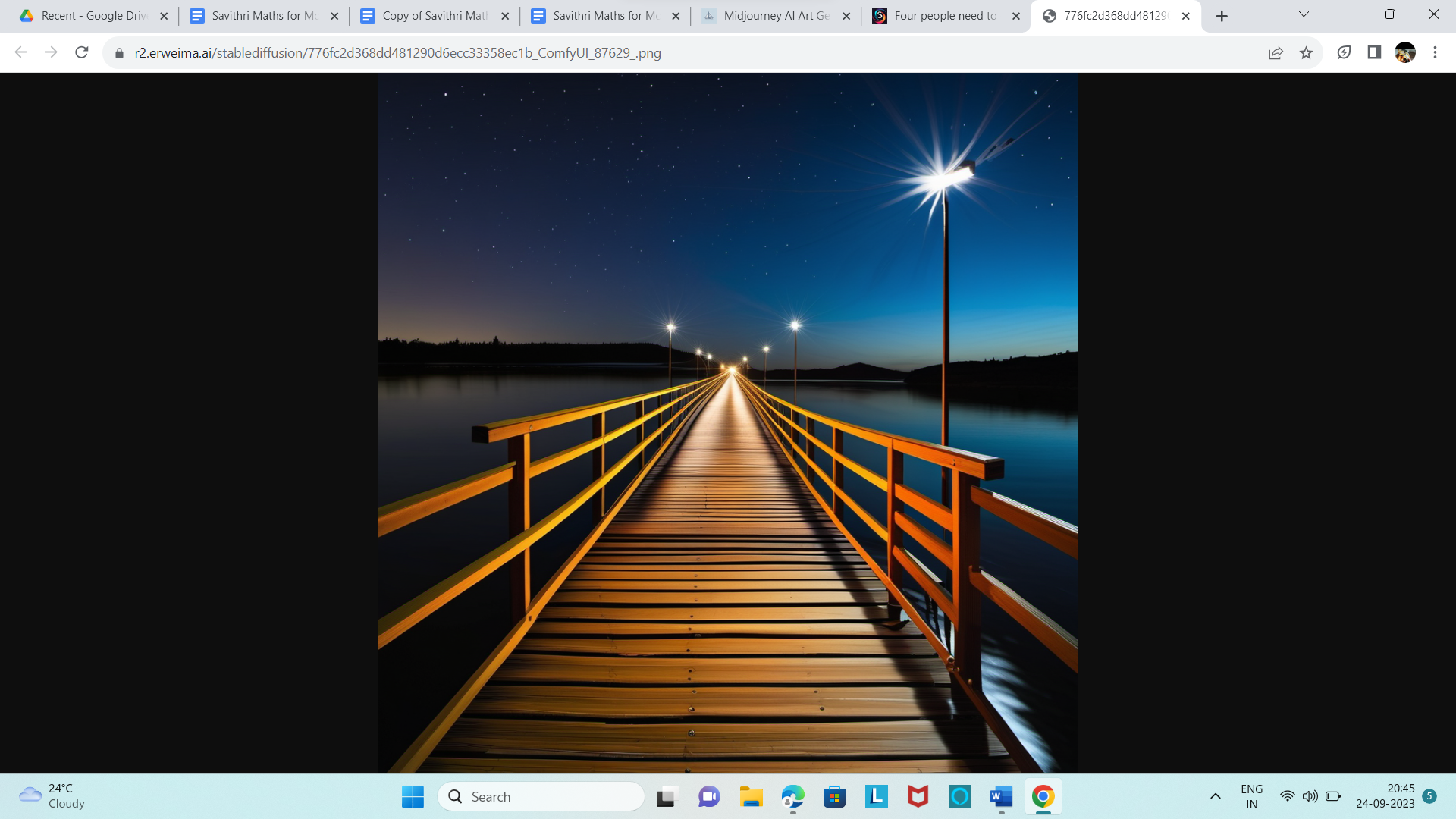
The Chessboard Puzzle:

Problem: On a chessboard, if you place one grain of wheat on the first square, two on the second, four on the third, and so on, doubling the number each time, how many grains of wheat would be on the 64th square?

Solution: The number of grains doubles with each square, so it's 2^0, 2^1, 2^2, ... 2^63. The total is 2^0 + 2^1 + 2^2 + ... + 2^63, which is equal to 2^64 - 1 = 18,446,744,073,709,551,615 grains.

The Bridge Crossing Puzzle:

Problem: Four people need to cross a rickety bridge at night. They have only one flashlight, and the bridge can only hold two people at a time. It takes each person a different amount of time to cross the bridge (1, 2, 5, and 10 minutes). What is the fastest time they can all cross?



Solution: The key is to minimize the time spent by the slowest two people. First, the two fastest (1 and 2 minutes) cross together (2 minutes). Then, the fastest person (1 minute) returns with the flashlight (3 minutes). Next, the two slowest (5 and 10 minutes) cross together (13 minutes). Finally, the second fastest (2 minutes) returns with the flashlight (15 minutes). In total, it takes 15 minutes for all four to cross.

The Coin Puzzle:

Problem: You have 12 identical-looking coins, but one is counterfeit and weighs slightly less. You also have a balance scale. How can you find the counterfeit coin using the scale only three times?

Solution: Divide the 12 coins into three groups of four. First, compare two of the groups on the scale. If they balance, the counterfeit coin is in the third group. If one side is lighter, the counterfeit is in that group. Then, take the group with the counterfeit coins and divide it into four individual coins, comparing two at a time on the scale. You'll find the counterfeit coin in one more measurement.

These are classic math puzzles that require logical thinking to solve.

User

Puzzles given by Shankulata devi

ChatGPT

Shakuntala Devi, also known as the "Human Computer," was famous for her incredible mental calculation abilities and mathematical puzzles. While I can't provide you with specific puzzles authored by her due to my knowledge limitations, I can offer some examples of the types of puzzles and mathematical challenges she often presented:

Calendar Calculations: Shakuntala Devi was known for her impressive ability to quickly calculate the day of the week for any given date in history. She often challenged people with questions like "What day of the week was January 1st, 1800?" and could provide an accurate answer within seconds.

Large Multiplication: She would often multiply large numbers together mentally, such as multiplying two 13-digit numbers, which is a challenging task for most people but was seemingly effortless for her.

Cube Roots: Shakuntala Devi was known for quickly calculating cube roots of large numbers in her head.

Mathematical Puzzles: She also authored various mathematical puzzle books that contained a wide range of challenges, including number patterns, series, and logic puzzles.

While I can't provide you with specific puzzles and solutions authored by Shakuntala Devi, you can explore her books, such as "Puzzles to Puzzle You" and "More Puzzles to Puzzle You," to discover a variety of mathematical puzzles and problems that showcase her extraordinary mathematical talents.

**Section 3 D: Course plan on “Joy of Number”**

Can you a course plan to teach from the book Joy of numbers

ChatGPT

Certainly, here's a sample course plan to teach mathematics using "The Joy of Numbers" by Shakuntala Devi. This plan is for a basic mathematics course suitable for students of various age groups:

Course Title: Exploring Mathematics with Shakuntala Devi's "The Joy of Numbers"

Course Duration: 12 weeks (1 semester)

Week 1-2: Introduction to "The Joy of Numbers"

Overview of Shakuntala Devi and her contributions to mathematics.

Introduction to the book and its objectives.

Motivation for learning mathematics.

Importance of mental math skills.

Week 3-4: Fundamentals of Arithmetic

Review of basic arithmetic operations: addition, subtraction, multiplication, division.

Mental math techniques and shortcuts.

Exercises and practice problems from the book.

Week 5-6: Fun with Numbers

Exploring patterns and properties of numbers.

Prime numbers, factors, and divisibility rules.

Number puzzles and challenges.

Week 7-8: Algebraic Concepts

Introduction to algebra.

Solving equations and inequalities.

Algebraic expressions and simplification.

Application of algebra in real-life scenarios.

Week 9-10: Geometry and Measurement

Basic geometry: lines, angles, triangles, and polygons.

Measurement units and conversions.

Geometric puzzles and problems.

Week 11-12: Advanced Topics

Introduction to advanced mathematical concepts.

Probability and statistics.

Introduction to calculus (basic concepts).

Final project: students choose a math-related topic and present their findings.

Assessment:

Weekly quizzes to evaluate understanding.

Mid-term and final exams.

Class participation and engagement.

Final project presentation.

Additional Resources:

Supplemental reading from "The Joy of Numbers."

Online resources for further practice and exploration.

This course plan is designed to make mathematics engaging and accessible to students while incorporating Shakuntala Devi's approach to joyful learning. It encourages students to develop strong mental math skills, explore the beauty of mathematics, and appreciate its real-world applications. Adjust the content and pace according to the level and age group of your students.

**Section 4 A:Course Design**

Basic course structure:

Introduction to Savithri

Introduction to Lilavati

Introduction to Shakuntala Devi.

(we have to shown how chatgpt can help to get same content in different Languages : English, French, Tamil, in the introduction to Savitri)

The course will be Parallel study of

Savithri (by Aurobindoo)

Lilavati ( by Bhaskara) : Puzzle-poems on math

The Joy of numbers (by Shankulata devi)

**Conclusion:**   
 In this Paper we have shown how a course for mothers on math with spiritual perspective can be developed using AI tools and we also shown how it can be globalized using AI tools.

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