

Ethnomathematics of Love Match Prediction According to Bali Wewaran and Primbon (Local Bali Ancestral Heritage)

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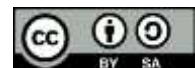
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ABSTRACT

To achieve happiness and prosperity in life, people use various methods. One such method is fortune-telling regarding their future lives. Balinese society strongly believes in fortune-telling related to birth dates, such as during wedding ceremonies, moving into a new home, and matchmaking. Many younger generations lack the understanding of local cultural customs and traditions. This is due to their lack of application and understanding of the importance of cultural values in society. Preserving regional culture and developing national culture can be achieved through education, both formal and non-formal. Education and culture play a crucial role in fostering the nation's noble values, which impact the formation of national character. One approach that can bridge the gap between culture and education is ethnomathematics. Ethnomathematics is an approach to mathematics learning that links mathematical concepts with local cultural elements in everyday life. The goal is to make mathematics more relevant and understandable to students, while fostering an appreciation for local culture. One interesting local cultural practice related to mathematics and relevant to the lives of the younger generation is fortune-telling. Marriage predictions are calculated based on calculations known as wewaran and Balinese primbon. The basic calculation is to add the urip saptawara, urip sadwara, and urip pancawara of both partners, then divide by a certain number to obtain a remainder. This remainder is used as a benchmark for determining the meaning.

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1. INTRODUCTION

A happy and prosperous life is everyone's dream, both as individuals choosing a life partner and as married couples. There are several ways to achieve

happiness and well-being in life. One of them is by conducting a life prediction.

In the midst of Balinese society which is very thick with traditional and cultural values, there is a strong belief in fortune telling related to birth days, for example in holding wedding ceremonies, in moving into

a new house, and in matchmaking. Fortune telling in terms of holding wedding ceremonies often refers to the consideration of Ala-Ayuning: Saptawara, Penanggal and Sasih. In moving into a new house, many use the birth urip Pancawara + Saptawara, while in matchmaking it is done by combining the birth urip of both partners Saptawara + Pancawara, and some also use the combination of urip Tri Pramana (Saptawara + Sadwara + Pancawara).

Many of the younger generation are unfamiliar with the local cultural values described above. This is due to their lack of application and understanding of the importance of cultural values in society. Cultural values can be instilled through the family, educational, and community environments. This is in line with what [1] stated that the preservation of regional culture and the development of national culture are achieved through education, both formal and non-formal, by reactivating all educational institutions and activities. Education and culture are inseparable from everyday life, as culture is a complete and comprehensive entity, applicable throughout a society, and education is a fundamental need for every individual in that society. Education and culture play a crucial role in fostering and developing the nation's noble values, which in turn shape character based on these noble cultural values. One approach that can bridge the gap between culture and education is ethnomathematics. Ethnomathematics is a mathematics learning approach that links mathematical concepts with elements of local culture in everyday life [2]. This approach aims to make mathematics more relevant and understandable by connecting it to students' customs, practices, and cultural environment, and fostering an appreciation of local culture.

Through the application of ethnomathematics in education, especially mathematics education, it is hoped that students will be able to better understand mathematics and their culture, and it will be easier for educators to instill cultural values in students, so that cultural values that are part of the nation's character are embedded from

an early age in students. One of the cultural values that is quite interesting to discuss that is related to mathematics, especially modulo arithmetic, and is relevant to the lives of the younger generation is soul mate prediction.

Marriage predictions are calculated based on calculations known as wewaran and Balinese primbon. Wewaran is a cultural heritage of the Balinese ancestors that is still used and maintained to this day. Wewaran is often used by Balinese people to determine Ala Ayuning dewasa (good or bad days for certain activities) such as weddings, funerals, moving house, starting a business, and other activities. The calculation is based on adding the urip saptawara (life) with the urip sadwara (life) and urip pancawara (life) of both partners, then dividing by a certain number to obtain a remainder. This remainder is used as a benchmark for determining its meaning. Although this concept is often mistakenly similar to modulo arithmetic in number theory, the use of modulo arithmetic is often found in Balinese wewaran calculations.

For example:

Formula for Calculating Pancawara (Market Days)

To calculate the number of days, multiply the Wuku number by 7, then add the desired Saptawara number, and divide by 5.

$$\text{Pancawara} = \frac{(Wuku \times 7 + \text{the desired Saptawara})}{5 (\text{Pancawara})} =$$

Sisa

If the remainder: 1 = Umanis (driving force)

2 = Pahing (creator)

3 = Pon (sovereign)

4 = Wage (preserver)

5 = Kliwon

(destroyer) [3]

Formula for Calculating Sadwara

To do this, the Wuku number is multiplied by 7, then added to the Saptawara number you are looking for, then divided by 6.

$$\text{Pancawara} = \frac{(Wuku \times 7 + \text{the desired Saptawara})}{6 (\text{Sadwara})} =$$

Remains

If the remainder: 1 = Tungleh
(Impermanent)

- 2 = Aryang (thin)
- 3 = Urukung (extinct)
- 4 = Paniron (fat)
- 5 = Was (strong)
- 6 = Maulu (breed)

Likewise, the formulas for determining other warrants (such as Ekawara, Dwiwara, Triwara, ... to Dasawara) [3].

2. METHODS

The method used in writing this article is a literature study, namely a series of activities related to collecting library data, reading, recording, reviewing, analyzing and conducting searches for theories (literature) related to the problem being discussed.

3. RESULTS AND DISCUSSION

3.1 Ethnomathematics

Ethnomathematics was first introduced by a Brazilian mathematician named [4] in a presentation by the American Association for the Advancement of Science [2]. According to [5], ethnomathematics is a mathematics learning approach that links mathematical concepts with local cultural elements in everyday life. This approach aims to make mathematics more relevant and understandable by connecting it to students' customs, practices, and cultural environments, as well as fostering an appreciation for local culture [6]. This is in line with the culture-based curriculum issued by the government. A culture-based curriculum is a curriculum oriented towards preparing cultured students by integrating local cultural values into the learning process. The goal is to prevent students from being alienated from their own culture, increase appreciation for local culture, and instill behaviors that are in accordance with the humanitarian values existing in society. This curriculum can be implemented through the introduction of regional songs, traditional games, cultural visits, and by making

culture a part of the content of each subject or self-development activity.

According to [4], ethnomathematics is mathematics practiced by specific cultural groups, such as indigenous peoples, tribes, labor groups, or children of a specific age group. The goal is to recognize the existence of different ways of doing mathematics based on different cultural contexts, so that mathematics is not only seen as a formal academic discipline. Ethnomathematics encompasses various activities such as counting, measuring, designing, and playing that are carried out within a cultural context.

Culture-based learning can be divided into three types: learning about culture, learning with culture, and learning through culture. Meanwhile, [7] states that there are four things that must be considered in culture-based learning: the substance and competency of the scientific/study field, the meaningfulness and learning process, the assessment of learning outcomes, and the role of culture. Culture-based learning emphasizes achieving integrated understanding rather than simply in-depth comprehension.

[4] also defines ethnomathematics as the study of mathematics that takes cultural considerations into account, where mathematics emerges through understanding the mathematical reasoning and systems used. The study of ethnomathematics in mathematics learning encompasses all fields: architecture, weaving, sewing, agriculture, kinship, ornamentation, spiritual and religious practices, which often align with patterns found in nature or govern systems of abstract ideas.

Similarly, [1] state that ethnomathematics encompasses mathematical ideas, thoughts, and practices developed by all cultures. Ethnomathematics can also be considered as a program that aims to study how

students understand, articulate, process, and ultimately use mathematical ideas, concepts, and practices that can solve problems related to their daily activities. Ethnomathematics uses mathematical concepts broadly related to various mathematical activities, including grouping, counting, measuring, designing buildings or tools, playing, determining locations, and so on, as stated by [4] that the purpose of ethnomathematics is to acknowledge that there are different ways of doing mathematics by considering the mathematical knowledge developed in various sectors of society and by considering different ways in community activities such as grouping, counting, measuring, designing buildings or tools, playing and others.

3.2 Matchmaking Prediction

According to the Big Indonesian Dictionary (KBBI), "marriage prediction" means the result of fortune-telling about a suitable person to become a husband or wife or life partner.

In Balinese culture, the belief in fate or destiny in married life is often linked to the birth date of each married couple. Amidst Balinese society's strong cultural and customary values, there is a strong belief in fortune-telling related to birth dates, especially in the context of matchmaking.

Marriage predictions are calculated based on a calculation known as Balinese *wewaran*. The basis of this marriage prediction is the intersection of the *Saptawara*, *Pancawara*, and *Sadwara* of the two partners or prospective husband and wife. *Saptawara* refers to the seven days of the week: *Redite*, *Soma*, *Anggara*, *Buda*, *Wraspati*, *Sukra*, and *Saniscara*. *Pancawara* represents the five days of the week: *Umanis*, *Paing*, *Pon*, *Wage*, and *Kliwon*. *Sadwara* represents the six days of the week: *Tungleh*, *Aryang*, *Urukung*, *Paniron*, *Was*, and *Mahulu*. By combining these three elements, it is hoped that a person's life

can be predicted or predicted. *Patemon*, a prediction of a soul mate, plays a vital role in Balinese life.

For most Balinese, this prediction is not merely a tradition or empty belief, but a serious guide in choosing a life partner. They believe that by taking this prediction into account, they can avoid marital conflict and achieve shared happiness. For those who believe in it, this prediction is one way to ensure harmony in marriage and achieve shared happiness in their married life. This prediction is also a vital part of Bali's rich and diverse cultural identity.

It is important to remember that *patemon*, a prediction of a soul mate, is not the only factor influencing the success of a marriage. While predictions can provide insight into the potential compatibility between two people, a healthy and happy relationship requires commitment, communication, and cooperation from both parties.

In the context of Balinese culture, rich in tradition and belief, the practice of *patemon* (predictions of love and marriage) remains an integral part. While sometimes viewed as an archaic practice, for many Balinese, *patemon* still holds significant value in helping them find a suitable life partner. For those who believe in it, *patemon* (predictions of love and marriage) is one way to ensure harmony in marriage and achieve shared happiness in married life.

3.3 Wewaran

Wewaran is a grouping of day cycles in the traditional Balinese calendar system, called *pawukon*. The word "wewaran" comes from the word "wara" which means day, and refers to a combination of ten days (such as *Ekawara*, *Dwiwara*, to *Dasawara*) used to determine the special, chosen, good, most beautiful, famous, and main time for various ceremonies and religious activities. *Wewaran* is a good day or the main day to do something or work. *Wewaran* is one of the important

elements in the pawukon calendar system of the Balinese people. The same thing was conveyed by [8] Wewaran comes from Sanskrit from the word wara duplicated (Dwipurwa) and gets the suffix an (we + wara + an). The word wara has many meanings such as: chosen; best; superior. Wara also means day; noble; main. From the description above, wewaran can be interpreted as the calculation of days. There are ten types of days in Wariga used in padewasan, which is the selection of an auspicious day to begin a project or ritual.

Each day in the wewaran cycle has a certain urip (life), which is an inherent value or "credit point", and a specific location or direction (pengumyan dina) according to the cardinal points. All of these are functional and significant in calculating the ayu and ala (good and bad), good and bad, for carrying out an activity or undertaking.

Wewaran in the Balinese calendar is known as the calculation of days based on the rhythm of the universe. Within wewaran, several names are used in the Balinese primbon (primbon) calculation system. The names of wewaran in the Balinese primbon are as follows:

- 1) Ekawara: Consists of the days Luang.
- 2) Dwiwara: Consists of the days Menga and Pepet.
- 3) Triwara: Consists of the days Pasah, Beteng, and Kajeng.
- 4) Caturwara: Consists of the days Sri, Laba, Jaya, and Menala.
- 5) Pancawara: Consists of the days Umanis, Paing, Pon, Wage, and Kliwon.
- 6) Sadwara: Consists of the days Tungleh, Aryang, Urukung, Paniron, Was, and Maulu.
- 7) Saptawara: Consists of the days Redite, Soma, Anggara, Buda, Wrespati, Sukra, and Saniscara.
- 8) Astawara: Consists of the days Sri, Indra, Guru, Yama, Ludra, Brahma, Kala, and Uma.

- 9) Sangawara Consists of the names of the days Dangu, Jangur, Gigis, Nohan, Ogan, Erangan, Urungan, Tulus, Dadi.

- 10) Dasawara Consists of the names of the days Pandita, Pati, Suka, Duka, Sri, Manuh, Manusa, Raja, Dewa, Raksasa.

3.4 Balinese Primbon

The term primbon is certainly very familiar to Indonesians. Moreover, primbon is a belief still held by local communities, such as the Javanese and Balinese. Besides the Javanese primbon, Indonesia also has the Balinese primbon. The Balinese primbon is actually not much different from the Javanese primbon. Primbon is a collection of notes containing various aspects of human life, including predictions, good and bad days, and even a person's character. Several terms in the Balinese primbon differ from the Javanese primbon. For example, the Balinese primbon has a different calendar than the Javanese primbon. This applies to determining neptu (Javanese primbon) and the names of the days of the week.

The Balinese primbon has its own calendar, which serves as a reference. This Balinese calendar can be used to determine good and bad days, or to assess a person's character. The Balinese primbon recognizes several types of calendars.

3.5 Saka Calendar

The Saka calendar is the calendar system used in the Balinese primbon. This calendar is used by Balinese Hindus and is based on the positions of the sun and moon. According to several sources, the Saka calendar in Bali incorporates local culture. Therefore, it differs from the Saka calendar used in India. In the Balinese calendar, a lunar month consists of 30 days, with 15 calendar days (suklapaksa) and 15 lunar days (kresnakapsa). The names of the months in the Balinese calendar are as follows:

- 1) Kasa: consists of 30 days

- 2) Karo: consists of 29 days
- 3) Katiga: consists of 30 days
- 4) Kapat: consists of 29 days
- 5) Kalima: consists of 30 days
- 6) Kaenem: consists of 29 days
- 7) Kapitu: consists of 30 days
- 8) Kawolu: consists of 29 / 30 days
- 9) Kasanga: consists of 29 / 30 days
- 10) Kadasa: consists of 29 days
- 11) Jiyestha: consists of 30 days
- 12) Sadha: consists of 29 days
- 13) Leap month: consists of (30) days

3.6 Balinese Pawukon Calendar

The next Balinese calendar is the Pawukon Bali. This calendar is purely arithmetic. The Pawukon Balinese calendar is not determined like the Saka calendar, as it does not take into account lunar phases or seasons. Meanwhile, a pawukon year is calculated as 210 days. Like the Wuku, which is seven days long, it has a 30-week cycle.

In Balinese and Javanese primbon, pawukon is often used to determine auspicious and inauspicious days. Furthermore, each pawukon or wuku within the 30 weeks has its own name. The pawukon calendar is as follows:

- 1) Sinta
- 2) Landep
- 3) Ukir
- 4) Kulantir
- 5) Tolu
- 6) Gumbreg
- 7) Wariga
- 8) Warigadean
- 9) Julungwangi
- 10) Sungsang
- 11) Dungulan
- 12) Kuningan
- 13) Langkir
- 14) Medangsia
- 15) Pujut
- 16) Pahang
- 17) Krulut
- 18) Merakih
- 19) Tambir
- 20) Medangkungan
- 21) Matal

- 22) Uye
- 23) Menail
- 24) Prangbakat
- 25) Bala
- 26) Ugu
- 27) Wayang
- 28) Klawu
- 29) Dukut
- 30) Watugunung

3.7 Balinese Calendar Terms in the Balinese Primbon

The Balinese Primbon contains several terms, similar to the Javanese calendar, which is also used as a reference in the primbon. Therefore, the Balinese Primbon also has its own calendar terms, which are equally important to understand. To learn about the Balinese calendar terms found in the primbon, see below.

a. Life (Urip)

In the Balinese primbon, it's also known as urip. Urip is another name for neptu in the Javanese primbon. Meanwhile, each day, week, and wuku has its own urip. This urip can then be used to determine good days, bad days, and a person's character based on the Balinese primbon.

Names of the Days of the Week (Saptawara):

- 1) Redite (Sunday) has a life of 5.
- 2) Soma (Monday) has a life of 4.
- 3) Anggara (Tuesday) has a life of 3.
- 4) Buda (Wednesday) has a life of 7.
- 5) Wraspati (Thursday) has a life of 8.
- 6) Sukra (Friday) has a life of 6.
- 7) Saniscara (Saturday) has a life of 9.

Names of the Days of the Week (Pancawara):

- 1) Umanis has a life of 5.
- 2) Paing has a life of 9.
- 3) Pon has a life of 7.

- 4) Wage has a life of 4.
- 5) Kliwon has a life of 8.

Balinese Primbon (Primbon Bali) is often used to determine compatibility. The Balinese Primbon explains that partner compatibility is determined by birth date and number of lives. The Balinese Primbon and Javanese Primbon are not significantly different, although there are some differences. One difference lies in the calendar used; Bali uses the Balinese calendar. Meanwhile, in the Balinese Primbon, compatibility can be determined by birth day for the Saptawara and Pancawara.

b. Saptawara and Pancawara

Saptawara and Pancawara in the Balinese primbon for marriage. Urip (life) in the Balinese primbon is often used as a source for certain calculations, for example, regarding good and bad days, character, or soul mates. More familiarly, urip is similar to neptu in the Javanese primbon. Each week, day, and even wuku (month) has a different urip. Therefore, before checking the Balinese primbon for marriage, first understand your partner's birth urip.

c. Balinese soul mate primbon according to Saptawara

In the Balinese primbon (primbon), Saptawara refers to a seven-day week, each with its own unique number of life signs (urip/neptu). These Saptawara can be used to determine compatibility based on the couple's birth date. The Balinese primbon for marriage according to the Saptawara is as follows:

- 1) Born on Sunday and born on Sunday: predicted to be frequently ill.
- 2) Born on Sunday and born on Monday: predicted to be afflicted with many illnesses.

- 3) Born on Sunday and born on Tuesday: predicted to be poor.
- 4) Born on Sunday and born on Wednesday: predicted to be happy.
- 5) Born on Sunday and born on Thursday: predicted to be often in conflict.
- 6) Born on Sunday and born on Friday: predicted to be happy.
- 7) Born on Sunday and born on Saturday: predicted to be poor.
- 8) Born on Monday and born on Sunday: predicted to be afflicted with many illnesses.
- 9) Born on Monday and born on Monday: predicted to be unlucky.
- 10) Born on Monday and born on Tuesday: predicted to be beautiful and happy.
- 11) Born on Monday and born on Wednesday: predicted to have a daughter.
- 12) Born on Monday and born on Thursday: predicted to be well-liked.
- 13) Born on Monday and born on Friday: predicted to be happy.
- 14) Born on Monday and born on Saturday: predicted to be happy. It is predicted that you will receive good fortune.
- 15) Those born on Tuesday and Wednesday: It is predicted that you will be rich.
- 16) Those born on Tuesday and Thursday: It is predicted that you will be rich.
- 17) Those born on Tuesday and Friday: It is predicted that you will be separated/divorced.

- 18) Those born on Tuesday and Saturday: It is predicted that you will often have conflicts.
- 19) Those born on Wednesday and Thursday: It is predicted that you will be happy.
- 20) Those born on Wednesday and Friday: It is predicted that you will be happy.
- 21) Those born on Wednesday and Saturday: It is predicted that you will be separated/divorced.
- 22) Those born on Thursday and Friday: It is predicted that you will be happy.
- 23) Those born on Thursday and Saturday: It is predicted that you will be separated/divorced.
- 24) Those born on Friday and Friday: It is predicted that you will be poor.
- 25) Those born on Friday and Saturday: It is predicted that you will be unfortunate.
- 26) Those born on Saturday and Saturday: It is predicted that you will be unlucky [9].

d. Modulo Arithmetic

Modular arithmetic is an integer operation system that operates based on the remainder of a division by a specific number, called the modulus. In mathematics, modulo arithmetic is defined as an arithmetic system for integers in which the numbers return to their original values when they reach a certain value. This concept is often called "modular arithmetic" or "clock arithmetic" because the numbers "circle" after reaching a certain value (modulus), much like an analog clock returning to 1 after 12. For example: $17 \bmod 5$ is 2 because 17 divided by 5 yields a remainder of 2.

The above explanation leads us to the following definition:

Suppose a and m are integers ($m > 0$). The operation $a \bmod m$ gives a remainder when a is divided by m . $a \bmod m = r$ can be expressed as $a = mq + r$ with $0 \leq r < m$. m is called the modulus or modulo. The arithmetic result modulo m lies in the set $\{0, 1, 2, 3, \dots, m-1\}$ [10].

Example for modulo 5:

$$10 \bmod 5 = \dots\dots?$$

$$a = 10, m = 5$$

$$a = mq + r$$

$$10 = 5 \cdot q + r$$

$$10 = 5 \cdot 2 + 0.$$

$$\text{So } r (\text{remainder}) = 0$$

Example for modulo 6:

$$41 \bmod 6 = \dots\dots\dots?$$

$$a = 41, m = 6$$

$$a = mq + r$$

$$41 = 6 \cdot q + r$$

$$41 = 6 \cdot 6 + 5$$

$$\text{So } r (\text{remainder}) = 5$$

Example for modulo 7:

$$25 \bmod 7 = \dots\dots?$$

$$a = 25, m = 7$$

$$a = mq + r$$

$$25 = 7 \cdot q + r$$

$$25 = 7 \cdot 3 + 4$$

$$\text{So } r (\text{remainder}) = 4$$

e. Ways to determine soulmate

Although there are many ways that can be used to determine a soul mate (life partner) for husband and wife, in this article we will discuss in more depth: 1. The method of matchmaking or meeting husband and wife by adding up the urip Saptawara and urip Pancawara, 2. The method of matchmaking or meeting husband and wife by adding up the urip Tri Pramana (Saptawara + Sadwara + Pancawara).

- f. The method of matchmaking or meeting husband and wife by adding up the life (urip) Saptawara and Pancawara life

Table 1. Urip Saptawara and Pancawara

Saptawara (7 days)	Urip	Pancawara (5 days)	Urip
Redite (Sunday)	5	Umanis	5
Soma (Monday)	4	Pahing	9
Anggara (Tuesday)	3	Pon	7
Buda (Wednesday)	7	Wage	4
Wraspati (Thursday)	8	Keliwon	8
Sukra (Friday)	6		
Saniscara (Saturday)	9		

Taking the birth date of a man and a woman according to the Saptawara and Pancawara urip (neptu), the birth date of each (man and woman) is added up, after both

are added together and then divided by 9, how much is left for the man and how much is left for the woman and then matched with the following table 2:

Table 2. Remaining Compatibility of Couples (Male and Female)

Remaining For Men	Remaining For Women	Prediction (Meaning)
1	1	Good, loved by others
1	2	Good
1	3	Strong, far from good fortune
1	4	Many misfortunes
1	5	Break up (divorce)
1	6	Shunned by food and clothing
1	7	Many enemies (enemies)
1	8	Uncertainty
1	9	Protects from protection
2	2	Good, much good fortune
2	3	Quickly abandoned
2	4	Many temptations
2	5	Many misfortunes
2	6	Quickly rich
2	7	Many children die
2	8	Cheap fortune
2	9	Many fortunes
3	3	Poor
3	4	Many misfortunes
3	5	Break up (divorce)
3	6	Receives blessings
3	7	Many misfortunes
3	8	One dies
3	9	Wealthy fortune
4	4	Often sick
4	5	Many plans
4	6	Wealthy fortune
4	7	Poor
4	8	Many roots
4	9	One loses
5	5	Continues good fortune
5	6	Plenty of fortunes

Remaining For Men	Remaining For Women	Prediction (Meaning)
5	7	Become food and clothing
5	8	Many dreams
5	9	Cheap food and clothing
6	6	Great misfortunes
6	7	Harmony and peace
6	8	Many hardships
6	9	Likely hanging in the balance
7	7	Punished by his wife
7	8	Suffers misfortunes from his wife
7	9	Continues to handle his karma
8	8	Beloved by people
8	9	Many are unfortunate
9	9	Lack of fortune

Example 1:

Boy Born: Sunday 5 + Umanis 5 = 10 : 9 = 1 remainder 1

Girl Born: Friday 6 + Kliwon 8 = 14 : 9 = 1 remainder 5

Based on table 2 above, a remainder of 1 with a remainder of 5 means the prediction is a breakup (divorce), which is not good.

Example 2:

Boy Born: Anggara 3 + Pon 7 = 10 : 9 = 1 remainder 1

Girl Born: Soma 4 + Keliwon 8 = 12 : 9 = 1 remainder 3

Based on table 2 above, a remainder of 1 with a remainder of 3 means the prediction is strong, with good fortune [9].

- g. **The method of matchmaking or meeting husband and wife by adding up the life (urip) of Tri Pramana (Saptawara + Sadwara + Pancawara)**

Table 3. Urip Tri Pramana (Saptawara, Sadwara, and Pancawara)

Saptawara (7 days)	Urip	Sadwara (6 days)	Urip	Pancawara (5 days)	Urip
Redite (Sunday)	5	Tungleh	7	Umanis	5
Soma (Monday)	4	Aryang	6	Pahing	9
Anggara (Tuesday)	3	Urukung	5	Pon	7
Buda (Wednesday)	7	Paniron	8	Wage	4
Wraspati (Thursday)	8	Was	9	Keliwon	8
Sukra (Friday)	6	Maulu	3		
Saniscara (Saturday)	9				

Taking from the Tri Pramana (Saptawara + Sadwara + Pancawara) life, the birth days of each (male - female) are added together, after both

are added together and then divided by 16, the remainder will be predicted as shown in table 4:

Table 4. Meaning of the remainder of the addition of Tri Pramana (Saptawara + Sadwara + Pancawara)

Remainder	Prediction (Meaning)
1	Joy and sorrow, sometimes good or bad, always uncertain

Remainder	Prediction (Meaning)
2	Daily hardships in self-employment, unlucky
3	Poor, often experiencing misfortune (mala)
4	Good, wealthy, having many children
5	Good, healthy, increasing income, becoming wealthy
6	Poor, experiencing misery, often getting sick
7	Poor, experiencing joy or sorrow, good or bad, ultimately finding happiness
8	Difficulty earning a living, will become destitute (poor)
9	Poor, always sick, life miserable
10	Good, will find pleasure as a king
11	Achieving one's dreams, then feeling happy
12	Obtaining lawful wealth, easy access to food and clothing
13	Great benefits, and a long life
14	Very happy, will find pleasure
15	Poor, often experiencing hardship
16	Will find happiness

Example 1:

Man born on Sunday 5 + Tungleh 7 +
Pahing 9 = 21

Woman born on Monday 4 + Aryang
6 + Pon 7 = 17

Total = 38 : 16 = 2, remainder 6.

The remainder of 6, as seen from table 4 above, indicates a less favorable prognosis, including suffering and frequent illness [9].

Example 2:

Man born on Sunday 5 + Was 9 +
Kliwon 8 = 22

Woman born on Wednesday 7 +
Maulu 3 + Umanis 5 = 15

Total = 37 : 16 = 2, remainder 5

The remainder of 5, as seen in table 4 above, indicates a good fortune, good health, increasing income, and prosperity.

In addition to the meaning of the remainder as described in table 4 above, there is also a remainder meaning presented in table 5, which has a similar meaning to table 4:

Table 5. Meaning of the remainder of the addition of Tri Pramana (Saptawara + Sadwara + Pancawara)

Remainder	The Meaning of the Meeting	Brief Explanation
1	Turbulent	Full of struggles, but potentially happy
2	Many expenses	Often sad, can lead to divorce
3	Always conflicting	Household full of conflict
4	Difficulty having children	Husband helpless, wife dominant
5	Harmonious	Smooth fortune, mutual understanding
6	Suffering	Many struggles, need for high spirituality
7	Slow development	Will be successful, but slow
8	Deficiency	Often grieving, incompatible
9	Rich but chaotic	Great fortune, but many conflicts
10	Authoritarian	Respected, but husband fears wife
11	Always satisfied	Prosperous, harmonious family
12	Smooth fortune	Loyal and full of love
13	Long-lasting	Wealth and joy, but there is a risk of sudden death
14	Decreased happiness	Frequent disagreements, can lead to poverty
15	Disharmonious	Disagreements, often fail
16	Increasing success	Successful children, harmonious family

Apart from the remaining meanings as described in tables 4 and 5 above, there are also remaining

meanings presented in table 6 which are related to the birth wuku of the husband and wife:

Table 6. Combination of Tri Pramana Birth Urip (Saptawara + Sadwara + Pancawara) and Birth Wuku

Wuku	Redite (Sunday)	Soma (Monday)	Anggara (Tuesday)	Buda (Wednesday)	Wraspati (Thursday)	Sukra (Friday)	Saniscara (Saturday)
Sinta	21	17	12	23	22	18	23
Landep	15	17	16	25	18	17	23
Ukir	15	21	19	14	23	17	23
Kulantir	20	17	14	19	23	18	21
Tolu	22	12	19	20	17	22	23
Gumbreg	17	18	13	20	21	24	19
Wariga	16	18	13	24	24	13	24
Warigadean	16	18	18	20	19	18	24
Julungwangi	17	16	20	15	24	18	18
Sungsang	21	18	15	21	18	19	22
Dunggulan	23	14	14	21	18	26	25
Kuningan	12	19	14	21	26	19	20
Langkir	17	19	15	19	25	24	25
Medangsia	18	13	19	21	20	20	19
Pujut	18	17	21	17	19	20	19
Pahang	22	20	10	22	19	20	26
Klurut	18	15	15	22	20	18	26
Merakih	13	20	16	16	24	20	21
Tambir	19	14	16	20	26	16	20
Medangkungan	19	14	20	23	18	21	20
Matal	19	19	18	18	20	21	21
Uye	17	21	11	23	21	15	25
Menail	19	16	17	16	21	19	27
Perangbakat	15	15	17	17	25	22	16
Bala	20	15	17	22	21	17	21
Ugu	20	16	15	24	16	22	22
Wayang	14	20	17	19	22	16	22
Kelawu	18	22	13	18	22	16	26
Dukut	21	11	18	18	22	21	22
Watugunung	16	16	18	19	20	23	17

Example 1: Marriage Prediction
Your Birth Date : Friday (Sukra)
Umanis, Wuku Warigadean

Partner's Birth Date : Wednesday
(Buda) Umanis, Wuku Julungwangi

Table 7. Wewaran Urip Calculation Based on Wariga Wuku and Partners' Birth Days

Wewaran	Your Urip	Your Partner's Urip
Pancawara	Umanis = 5	Umanis = 5
Sadwara	Tungleh = 7	Maulu = 3
Saptawara	Friday (Sukra) = 6	Wednesday (Buda) = 7
Total	18	15

Calculation: $18 + 15 = 33$ divided by $16 = 2$, remainder 1

The remainder of 1, according to tables 4 and 5 above, is predicted to experience joy and sorrow, sometimes good/bad, always uncertain or turbulent, full of trials, but potentially happy.

Example 2: Marriage Prediction
Your Birth Date: Tuesday
(Anggara) Pahing, Wuku Tulu
Partner's Birth Date: Thursday
(Wraspati) Pon, Wuku Wariga

Table 8. Wewaran Urip Calculation Based on Tulu and Wariga Wuku

Wewaran	Your Urip	Your Partner's Urip
Pancawara	Pahing = 9	Pon = 7
Sadwara	Tungleh = 7	Was = 9
Saptawara	Tuesday (Anggara) = 3	Thursday (Wraspati) = 8
Total	19	24

Calculation: $19 + 24 = 43$ divided by $16 = 2$, remainder 11

The remainder of 11, according to tables 4 and 5 above, is predicted to always be content, prosperous, and have a harmonious family.

4. CONCLUSION

Based on the discussion above, it can be concluded that marriage predictions are calculated based on Balinese wisdom and primbon, which are ancestral cultural heritages of the Balinese people that are still used and maintained to this day. In addition to determining marriage predictions, Balinese wisdom and primbon are also often used by the Balinese people to determine Ala-Ayuning Dewasa (good or bad days for carrying out certain activities) such as wedding ceremonies, funerals, moving house, starting a business, and other activities. The

basis for the calculation is by adding the urip saptawara, urip sadwara, and urip pancawara, then dividing by a certain number to obtain a remainder. This remainder is used as a benchmark for determining its meaning. This concept is similar to the concept of modulo arithmetic in number theory. The use of the concept of modulo arithmetic is often found in Balinese wewaran calculations. Marriage predictions derived from ancestral beliefs and culture also serve as a reminder of the dynamics of life. The good or bad of life's journey is not only determined by "neptu (urip)" but also by a person's choices, actions, and determination in facing challenges. While a love prediction can provide insight into the potential compatibility between two people, it's not the only factor influencing marriage. A healthy and happy relationship requires commitment, communication, and cooperation from both parties.

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