

The following reviews the basics of the Islamic (Ramadan), Jewish and Christian calendars. Islamic Calendar. The Islamic calendar (also known as the Hijri calendar). The calendar is based on the lunar cycle (based on the phases of the moon).

On the left hand side of the page, the calendar consistent with the Book of Genesis is described in detail. The right hand side of the calendar page shows the dates of the Old Testament from the start of the Exodus out of Egypt. This is helpful information to the reader when Scripture often gives only the number of the month, instead of the Hebrew name of the month, and the day of the month of a particular event. Because of the Day side-by-side presentation of the Genesis and Exodus calendars, the reader can now possibly know any specific date given in Scripture depending of what portion of the Old Testament is being read. This same day is also Friday September 13 on the Day calendar. Every January 1 falls on a Tuesday and is also Tevet 12 on the Day calendar. The Hebrew nomenclature portion of the calendar is made up the days of the Hebrew calendar. The other eight Hebrew calendar days are the Sunday to Sunday days of Creation Week which have no corresponding days on the currently used secular Hebrew calendar. Each Hebrew date is always paired with a corresponding Julian nomenclature date. Since the Hebrew calendar day starts at 6: The eight solar Sunday to Sunday days, which make the seven consecutive Hebrew days of Creation Week, are placed between the end of the first month of Tishri and the start of the second month of Heshvan on the Genesis version of the Day calendar. On the Exodus version of the Day calendar, the Sunday to Sunday Hebrew days of Creation Week are placed between the end of the seventh month of Tishri and the start of the eighth month of Heshvan. The Sunday to Sunday days of Creation Week do not have corresponding days on the currently used secular Hebrew calendar. On the Julian nomenclature portion of the Day calendar, the Sunday to Sunday solar days of Creation Week correspond to October 13 through October 20. The DFC dates for the births and deaths of the Patriarchs function like the marks on an ruler and can be used to accurately measure the passage of time in Scripture. As previously stated, the days of the week are the same every year on this Day calendar. This Day calendar is not a solar, lunar or seasonal calendar. This is primarily due to the fact that the Day year is 1. During the events found in Genesis, Heshvan is the second month and Tishri is the seventh month. The right-hand half of the Day calendar shows the numbered months and days of the Old Testament from the Book of Exodus until the end of the Old Testament found in the Book of Malachi. In this part of Scripture the first month is the month of Nisan, the second month is Iyar, and the seventh month is Tishri. On the Day calendar, the month of Tishri has 31 days. Since the days of Creation Week have no corresponding day on the secular Hebrew calendar, these eight days have to be given a name just like any other day in the year on any calendar. Since four months of the year on any Hebrew calendar have 29 days in the month, this fact alone rules out the possibility of the calendar of Scripture being a Day calendar with 12 months of 30 day months. The Day calendar theory, as the calendar of Scripture, has no support in the text of Scripture and has only added to the confusion of finding an accurate Bible Chronology. The month of Tishri normally has 30 days on the secular Hebrew calendar. As previously mentioned, on the Day calendar, Tishri is the only Hebrew nomenclature month that has 31 days. Tishri 31 falls on the first Sunday of Creation Week. The reader should note that the Sunday to Sunday days of Creation Week on the Genesis version of the Day calendar run parallel to the Sunday to Sunday days of Easter Week on the Exodus version of the calendar. In like manner, the Sunday to Sunday events of Passover Week, Nisan 12 through Nisan 19 on the Genesis calendar, run parallel to the events of Creation Week on the Exodus version of the Day calendar. DFC dates are the most numerous exact dates found during the lives of the Patriarchs. Understanding the calculation of DFC dates is the foundation for dating a large portion of the events in Scripture and connecting the dates to currently used calendars. The most basic simple principle of DFC dating is this: For example, when Noah takes the covering off the Ark, it is years from Creation Week according to the Biblical text. For every 5 years of time that passes, the date is moved over one day on the Day calendar from the starting event of the time span. A few examples from the Patriarchs will hopefully help to clarify this concept. As previously stated, the DFC date is simply the number

of completed Day years from Creation Day 3 of Creation Week plus one-fifth of the number of years from Creation Week in days. According to Genesis 4: If the reader looks at the Day calendar, it will be noted that Monday November 11 â€” Heshvan 22 is CD 26 on the calendar. The extra six days is due to the fact that King David is crowned King of Israel for the third time when he is thirty years old on Sunday November 17 â€” Heshvan 28 in BC. Finding the DFC date in Scripture can also be accomplished by using the 5-year rule and another DFC date as a starting point of calculation. For example, Genesis These are all examples of DFC dating and the application of the 5-year rule. At this point in explaining the Day calendar, I need to address the claim that Day 7 of Creation is a Sunday instead of a Saturday. For many readers this will be a huge stumbling block to understanding or accepting the claims of this research as being a legitimate interpretation of the Book of Genesis. This part of the research appears to go against a long standing assumption that Day 7 of Creation was a Saturday. Scripture is very clear that God made only seven days in a week and named them with a number. These seven days make up the seven days of the week found in the days of the month on any solar or secular Hebrew calendar used by most of the world today. It is also clear that one day a week is to be set aside as the Sabbath. The date name, such as September 13 â€” Tishri 1, on the Day calendar will always fall on a Friday. On a solar Julian or Hebrew calendar, the same date of September 13 or Tishri 1, will fall on a different day of the week depending on the day of week that starts that particular year. Since there is no corresponding Hebrew nomenclature day name for Creation Day 7 of Creation Week, or any other day of Creation Week, Creation Day 7, like July 4, will be a different day of the week every year in a mathematically generated solar year schedule. Since the Day calendar digitally generates corresponding days on the Gregorian-Hebrew solar calendar, Creation Day 7 will be a different day of the week depending on the start and end day of the week that year and the type of solar year. On a solar Gregorian calendar, Creation Day 7 will be a different day of the week, depending on the type of year and the day of the week that starts and ends the year. These dates clearly demonstrate that the two calendars digitally appear to start 14 years and 8 days apart. The year of Creation in BC on the Gregorian calendar is a special year. It is not a leap year but is treated like a normal year. A special year is a leap year that only has days. This occasional removal of a day is necessary to keep the Gregorian calendar accurate since the amount of time it takes the Earth to go around the Sun is actually eleven minutes and 15 seconds less than the Mathematically speaking, the actual length of a solar year is This exact calculation can only be determined by accurately using the dated years found in Scripture. In order to get an exact digital measurement of a solar year, over a 4, year span of time, it is necessary to have an exact start date. When a leap year or special year ends on a Monday, Creation Day 7 will fall on Sunday, October 21 on the Gregorian solar calendar. As the reader can plainly see, Creation Day 7, like Nisan 14 or July 4 on a solar calendar, falls on a different day of the week depending on the type of year. On the Day calendar, Creation Day 7 always falls on the same day of the week like every other date on that calendar. Creation day 7 always falls on a Sunday on the Day calendar in the same way that Nisan 14 Passover always falls on a Tuesday on the calendar consistent with the Old Testament. This Day calendar is obviously not a solar calendar but clearly generates the currently used Gregorian, Julian, and secular Hebrew solar calendars in a very unique and precise manner. All of these calendars can be computer generated and synchronized using the Julian day number assigned to each day on the Julian calendar. This Bible Timeline research will show, clearly and scientifically, that computing the Julian day number is a very easy computation once the Julian day number for any day of Creation Week is established by simply using the numbered years and dates in the Masoretic text of the Old Testament. The connection between the Day calendar of the Old Testament and the currently used Julian, Gregorian, and Hebrew secular calendars is one of the most monumental results of the unique Bible Timeline research. If the reader looks at a computer generated calendar, it will be noticed that April 5 in the year 30 AD is a Friday. In that year, Friday, Nisan 14 is both the day of preparation for the Sabbath and the day of preparation for the Feast of Unleavened Bread that starts on the solar date Saturday, Nisan 15 of 30 AD. In Scripture, Friday is always the day of preparation for the Sabbath. Every Friday food is prepared for the Sabbath day. Any necessary work that needs to be done is done on Friday before the Sabbath so that it will not be necessary to do any work on a Saturday. This same day is also connected to the day of preparation for the Feast of Unleavened Bread in John At this point, in the

discussion of the events of Easter Week, it may be helpful to elaborate on the connection of the day of preparation to the Feast of Unleavened Bread mentioned in John. There seems to be some confusion about the day of the week of the Last Supper and in some cases the day of the week of the crucifixion. I have heard more than one person say that the Last Supper and the time when Jesus is in the Garden of Gethsamane are events that occur on Thursday. Assuming the Last Supper events happened before midnight, a reasonable assumption, the day of the week would be Thursday only on a solar calendar that measures the days from midnight to midnight. On a Hebrew calendar, these events are clearly on a Friday assuming the events happened after 6: The Passover Lamb is killed and prepared between 3: Even though Nisan 14 will officially not start until 6: Some historians have suggested that the Galileans celebrated Nisan 14 most heavily at the beginning of the Hebrew day at the evening start of Passover. This would be the time of the events associated with the Last Supper. Others may have had their main Passover Feast at the end of the day ending around 3: This latter part of the day, on Nisan Passover, is the time when all the food from the Passover meal is cleared out and no yeast or leavened products are allowed to remain in the home. In order to understand more clearly the precise nature of the dated years in Scripture and the significance of the Day calendar, it is important to explain one main reason that no Bible chronology to date, going from Creation to Easter Week, has been able to come up with dated events that match the numbers in the Biblical text. These and other high tech tools were used extensively along with the New King James Version of the MacArthur Study Bible and the vast but often confusing Biblical database found on the Internet. With these tools, it has taken this author almost eight years to get this far in the research working on a part-time basis. Without these resources, even the most persistent Bible chronologist would have become discouraged and would have concluded, like many previous researchers have, that it was impossible to accurately date the life span of earth using only the text of Scripture as the standard by which other dates in history can be measured. In order to clearly see how the Day calendar of Scripture connects with the calendars in use today, we will use the date of the crucifixion as the starting computer calendar date to date the events of Scripture and calculate the real age of the earth. Note that the currently used Hebrew secular calendar, which was not created until after the events of the New Testament, is two days later than the Hebrew date of this New Testament event on the Nisan 14 Passover date in the year 30 AD. The Julian calendar is also two days later than the Gregorian calendar in 30 AD. It is not surprising that the Hebrew secular solar calendar would be in agreement with the Julian calendar since they were created about one hundred to four hundred years apart. The currently used Hebrew secular calendar was likely developed and finalized a few centuries after the creation of the Julian calendar in 46 BC and after the recorded events of the Old Testament. It took more than 1, years for a modern calendar to get close to the accuracy of the calendar consistent with the numbered years in the text of Old Testament. The text of Scripture is very clear that the currently used Hebrew secular calendar is not the Day Hebrew calendar consistent with the Old Testament. Both calendars follow certain basis rules of a Hebrew calendar.

Chapter 2 : Babylonian, Jewish, Muslim, Luni-Solar, Indian, Iranian Calendars

This is why Jewish holidays land roughly around the same time on the Gregorian calendar and correspond to the seasons, while Muslim holidays drift slowly through the year coming approximately 11 days earlier (with respect to the solar year) every year.

Week days are not named, only numbered Notes: The Gregorian Calendar did not exist prior to October 15, , so dates displayed before that are meaningless. Thus, George Washington was actually born on Feb. This is a true solar calendar. But it has special rules for establishing when Easter occurs which is dependent also on the Moon. Septuagesima is 63 days or 9 weeks before Easter. Quinquagesima is 49 days before Easter. Ash Wednesday is the beginning of Lent at 46 days before Easter. Palm Sunday begins Passion Week at 7 days before Easter. Good Friday is 2 days before Easter. Rogation Sunday is 35 days after Easter. Ascension is 39 days after Easter. Pentecost is 49 days after Easter. Trinity Sunday is 56 days or 8 weeks after Easter. Corpus Christi is 60 days after Easter. Christmas is on December That year was the longest year ever, as the Emperor Julius Caesar declared it to have days so that the seasons again matched up properly! It became a Christian calendar in what we now call AD when a Monk decided to base the calendar on the date of the Birth of Jesus. Therefore the year numbers given here did not exist prior to AD, and the year numbers actually used were still then in the AUC calendar, where the number was higher - so AD was actually then known as AUC. His calculations were close but we now believe that Jesus was Born early in what we would now call 4 BC. This Christian-modified Julian calendar gradually became used world-wide in the centuries after AD, until the more accurate Gregorian calendar replaced it a thousand years later in most places due to improved accuracy regarding Leap Years and the seasons. The Orthodox Church still uses this calendar but virtually no one else does. It is currently about 13 days different from the Gregorian calendar. Triodon begins at 70 days or 10 weeks before Orthodox Easter. First Saturday of Souls is 57 days before Orthodox Easter. Lent begins on Monday at 48 days before Orthodox Easter. Sunday of Orthodoxy is 42 days before Orthodox Easter. Holy Good Friday is 2 days before Orthodox Easter. Ascension is 39 days after Orthodox Easter. Pentecost is 49 days after Orthodox Easter. All Saints Day is 56 days or 8 weeks after Orthodox Easter. Dates displayed before that are therefore meaningless. The month of Ramadan involves fasting regarding eating, drinking and smoking, from dawn to the moment of sunset. Eid al-Fitr begins on Shawwal 1, and lasts for three days, is the Feast of Fast-Breaking and is celebrated with special prayers and festivities. Eid al-Adha begins on Dhul-Hijjah 10, and lasts for three days, marks the end of the Hajj, the Festival of the Sacrifice. The Hebrew Calendar is based on the concept that the Universe was created in October, BC, and so all dates are based on that. It is a lunisolar calendar. Fast of Gedalya is Tishri 2. Sukkot is Tishri Shemini Atzeret is Tishri Hanukkah begins Kislev 25, and continues for a total of eight days. Purim is Adar Pesach is Passover at Nisan Shavuot is Jewish Pentecost at Sivan 6.

Chapter 3 : A Day calendar dates events from Creation to Crucifixion.

Calendar comparison Gregorian, Jewish, and Islamic by Matt Slick Following is a comparison of different calendars used in Western civilization (Gregorian), the Jewish culture, and Islamic culture.

Among the difference between these calendars is the core events that they are based on, the lengths of the months and years, and when the day begins. Perhaps the fundamental way to categorize calendars is by their core event “ that is, what the calendar is based on. It has a year comprised of 12 months and days, in a leap year , which occurs by adding a day in February every four years. This calendar sought to improve on its predecessors, creating a more regular format than the lunar calendars and Julian calendar. The Gregorian calendar took the place of the Julian calendar around the end of the 16th Century. The emigration is said to have been commanded by God after many years of Muslim persecution and took place in AD, according to the Western Calendar, or AM Anno Mundi, or in the year of the world according to the Jewish calendar. Hira is Arabic for emigration, and so the Islamic calendar is also called the Hijri calendar. The calendar is based on the lunar year, has about 354 days and 12 months, each with either 29 or 30 days. The Jewish calendar is a lunisolar calendar and is based on creation that is said to have occurred “ around BCE according to the Western Calendar. The Jewish or Hebrew calendar has anywhere from 354 to 384 days, and 12 months, 13 in a leap year. Months have 29 or 30 days: While the Western and Islamic calendars have a new year beginning with the first month, the new year according to the Jewish calendar begins in the seventh, not first, month of the year. Another way these types of calendars differ is when the new day begins. In the Julian, Gregorian, Western and Christian calendars, the day begins at midnight. The Islamic and Jewish calendars, however, begin at sundown. There are many other types of calendars; the Western calendar is perhaps the most popular, however. Another popular type of calendar “ the Chinese calendar “ is still used today for Chinese holidays and for astrological purposes. It is a lunisolar calendar with 12 months in a regular year and 13 months every second or third year. Days in the Chinese calendar begin at 11 PM, not midnight. While there is some dispute over when the Chinese calendar began, most believe it began somewhere around to BC.

Chapter 4 : Yom Kippur and Ashoura: Are Muslims observing a Jewish holiday? | Islam | Al Jazeera

There are three main calendars based on different ways of marking time – the Western calendar, also called the Christian calendar or the Gregorian calendar; the Islamic or Hijri calendar; and the Jewish or Hebrew calendar.

Yom Kippur and Ashoura: Are Muslims observing a Jewish holiday? The Judeo-Islamic tradition has deep historical roots that Zionism and Islamism have tried to erase. On September 10, Jews around the world began their high holidays by commemorating Rosh Hashana which continues for 10 days until September 19, Yom Kippur. Both the Jewish and Islamic calendars are lunar while the Gregorian calendar on which they are being cast is solar. The lunar calendar is 11 days shorter than the solar and for that reason, though stable on their own respective calendars, Jewish and Islamic holidays appear to "roam" aimlessly on the Christian calendar. None of this is "the fault" of either the Jewish or the Islamic calendar. Given the way in which the Christian calendar has been imperially universalised, the other two may look erratic and confusing, but Jewish and Islamic high holy days are perfectly logical, routine, and regular. On the occasion of the two holidays coinciding in , Rabbi Allen S Maller noted how "both holy days occur on the 10th day of the month, Muharram for Muslims and Tishri for Jews. Thus the origin of this overlap in tradition is traced back to the time of the Prophet himself. Thinking in Judeo-Islamic terms The similarities, correspondences and affinities of such aspects of Islam and Judaism are only strange or bizarre to those who have fallen into the trap of falsely projecting the Zionist colonial adventurism in Palestine backwards onto history and positing an entrenched hostility between Jews and Muslims. Like Christianity, Islam is deeply influenced by Judaism and has an even stronger proximity to its theological monotheism. This is not a matter of opinion or ideological position. It is a matter of historical fact. By making such declarations, Obama projects his own criminal role in prolonging the Palestinian suffering under Zionist occupation to some distant past that never was. Much of the confusion and conflation of Judaism and Zionism, and particularly the false and pernicious extension of the charge of anti-Semitism against Muslims, have the same roots as this forced approximation of both Jewish and Islamic calendars to the Gregorian calendar - where Jews and Muslims are forced to see each other in Christian terms. Zionism is the condition of Jewish alienation from Judaism, precisely in the way militant Islamism is the condition of self-alienation for Muslims. Contrary to "the Judeo-Christian" concoction contested and contradicted by a long history of Christian anti-Semitism , the idea of Judeo-Islamic tradition is not based on any political or ideological project but evident in the most robust period of Jewish and Islamic philosophies that is unrivalled in any other tradition. Consider the fact that saying these Jewish and Islamic holidays are on such and such days in September is entirely meaningless to both Jews and Muslims and the inner rhythm of their own respective calendars. Both of these expressions are actually nervous and futile attempts to disguise the fact that we are all forced to use an imperial Christian calendar, which is ipso facto a distortion of the time and narrative of both Jews and Muslims and which approximates them to a dominant Christian temporal order. As a European colonial project, Zionism was formed in a decidedly Christian context and its endemic anti-Semitism - most violently evident in the course of the Crusades - of endless pogroms and, ultimately, the Holocaust. But before and beyond the Zionist abuse of Judaism similar to the Islamist abuse of Islam in Iran and Saudi Arabia, or colonial abuse of Christianity in the US, the fundamentalist abuse of Hinduism in India, or the nationalist abuse of Buddhism in Myanmar , there is an enduring and historically grounded proximity to the Judeo-Islamic heritage which started even before the Golden Era of Andalusia. From Saadia Gaon to Yehuda Halevi to Maimonides , the leading luminaries of Jewish philosophy were in enduring conversation with their Muslim counterpart - Avicenna , Abu Hamid al-Ghazali and Averroes This Judeo-Islamic philosophical tradition was real and not created out of any political convenience or necessity. Today, militant Zionism, puritanical Islamism and evangelical imperialism are collectively invested in concealing these historical facts and either denying or else catapulting the profound heritage of Judeo-Islamic philosophy back into "ancient times". Political Islamism, militant Zionism, Christian imperialism Racist, Islamophobic, xenophobic anti-Semites like Steve Bannon a strong advocate of Israel now use the term "Judeo-Christian tradition" as a subterfuge to fabricate a common religious foregrounding for

anti-Muslim bigotry. There is an entire bloody history of Jewish suffering defying that hyphenated delusion of "Judeo-Christian" heritage. How could a racist, Christian-Zionist anti-Semite lay a claim on any "Judeo-Christian" heritage - except as a ridiculously transparent Islamophobic trope? The fact of the Judeo-Islamic tradition, however, is far more potent historical evidence than semi-literate propaganda officers like Bannon and his ilk can even fathom, let alone contest. Three complementary ideological fanaticisms are chiefly responsible for the sustained bifurcation manufactured today between Islam and Judaism - all of them handmade by European colonialism, all of them invested in denying and dismissing the legacies of the Judeo-Islamic tradition. Militant Islamism, fanatical Zionism and Christian imperialism are the triangulated foregrounding of fear and fanaticism that has wreaked havoc in our world and systematically and consistently distorted the clarity of our historical visions. In opposition to European colonialism, militant Islamism both the Sunni and Shia versions of it, stripped Islamic intellectual history of its factual pluralistic and cosmopolitan character, reducing it to a singular site of resistance to European colonialism. In the same vein, Zionism, extending the racist logic of European colonialism into the heart of the Arab world, stripped Judaism of its equally worldly moral imagination. Fanatical Islamism, settler colonial Zionism and imperial evangelicalism are chiefly responsible for this manufactured rift between Judaism and Islam against the historical grain of their proximities. And precisely for that reason, any legitimate criticism of Zionism as a racist colonial project that spills over into a racist attack on Judaism and Jews is falling fast into the Zionist trap and by definition is anti-Semitic. Of course, what has historically exacerbated the mutual impacts of Islamism and Zionism is the course of Christian imperialism, now best represented in the racist malignancies of the likes of Steve Bannon. His brand of evangelical imperialism now actively presides over and exacerbates both militant Islamism and fanatical Zionism. Retrieving a lost cosmopolitan culture To state and repeat the obvious: Christian and now even Muslim and Hindu Zionists are among the wealthiest and most powerful, sustaining the calamitous course of the colonisation of Palestine. That is the end of the false and deliberate Zionist conflation of their violent state ideology with Judaism - precisely on the model of the abuse of Islam and Muslims by Islamist ideologies now ruling in Iran and Saudi Arabia. In their mutual hostilities against each other, they are in fact steadfastly united with each other in robbing Judaism, Christianity and Islam of their shared legacies, blinding the world to reason and sanity. The idea of a much closer proximity between Islam and Judaism than now deliberately clouded by the Zionist colonial project does not mean historically there has not been a relation of power between the two world religions. There could not have possibly been any equality between the ruling elite of the powerful Muslim empires and these small minorities in their domains. That in these dynastic and imperial Muslim contexts there has been a Judeo-Islamic philosophical tradition unrivalled anywhere else in the world is a testimony to the presence of potent intellectual thrusts among Muslim and Jewish philosophers responding to the mighty heritage of Greek philosophical tradition they shared. The fates of both Judaism and Islam have been pitted against each other in the context of European colonial conquests in Arab lands, giving almost simultaneous birth to militant Zionism and triumphalist Islamism - one as a colonial and the other as an anti-colonial project of violent state-formation. Militant Islamism and bellicose Zionism are coterminous with the Christian imperialism that frames them both. All these three triumphalist ideologies are morally bankrupt projects. The task at hand is how to save Islam, Judaism, and Christianity - as three world religions and concurrent frames of our moral imagination - from the claws of so many decades of epistemic abuse. The concurrence of Yom Kippur and Ashoura this September is a gentle reminder of a much different history than the one mandated in Palestine and beyond by the malignant disease of European colonialism. There is nothing wrong with Muslims celebrating a Jewish holiday while commemorating their own most sacrosanct days. There is nothing wrong with Jews looking at a Muslim holiday and seeing the distant mirror of their own ancient beliefs.

Chapter 5 : Islamic calendar - Wikipedia

The Gregorian calendar was proclaimed by Pope Gregory XIII and took effect in most Catholic states in , in which October 4, of the Julian calendar was followed by October 15 in the new calendar, correcting for the accumulated discrepancy between the Julian calendar and the equinox as of that date.

The Gregorian calendar is a solar calendar with 12 months of 28–31 days each. A regular Gregorian year consists of days, but in certain years known as leap years , a leap day is added to February. Gregorian years are identified by consecutive year numbers. Although the calendar year currently runs from 1 January to 31 December, at previous times year numbers were based on a different starting point within the calendar see the "beginning of the year" section below. In the Julian calendar , a leap year occurred every 4 years, and the leap day was inserted by doubling 24 February. The Gregorian reform omitted a leap day in three of every years and left the leap day unchanged. However, it has become customary in the modern period to number the days sequentially with no gaps, and 29 February is typically considered as the leap day. Before the revision of the Roman Calendar , the Roman Catholic Church delayed February feasts after the 23rd by one day in leap years; Masses celebrated according to the previous calendar still reflect this delay. The Gregorian calendar was a reform of the Julian calendar. The error in the Julian calendar its assumption that there are exactly Although a recommendation of the First Council of Nicaea in specified that all Christians should celebrate Easter on the same day, it took almost five centuries before virtually all Christians achieved that objective by adopting the rules of the Church of Alexandria see Easter for the issues which arose. Computus Because the date of Easter was tied to the Spring Equinox, the Roman Catholic Church considered the seasonal drift in the date of Easter undesirable. The Church of Alexandria celebrated Easter on the Sunday after the 14th day of the moon computed using the Metonic cycle that falls on or after the vernal equinox, which they placed on 21 March. However, the Church of Rome still regarded 25 March Lady Day as the equinox until , and used a different cycle to compute the day of the moon. This meant that Easter varied between 22 March and 25 April. In Rome, Easter was not allowed to fall later than 21 April, that being the day of the Parilia or birthday of Rome and a pagan festival. The first day of the Easter moon could fall no earlier than 5 March and no later than 2 April. Easter was the Sunday after the 15th day of this moon, whose 14th day was allowed to precede the equinox. Where the two systems produced different dates there was generally a compromise so that both churches were able to celebrate on the same day. By the 10th century all churches except some on the eastern border of the Byzantine Empire had adopted the Alexandrian Easter, which still placed the vernal equinox on 21 March, although Bede had already noted its drift in –it had drifted even further by the 16th century. That approximation built up an error of one day every years, so by the 16th century the lunar calendar was out of phase with the real Moon by four days. European scholars had been well aware of the calendar drift since the early medieval period. Bede , writing in the 8th century, showed that the accumulated error in his day was more than three days. Roger Bacon in c. Dante , writing c. The first attempt to go forward with such a reform was undertaken by Pope Sixtus IV , who in invited Regiomontanus to the Vatican for this purpose. However, the project was interrupted by the death of Regiomontanus shortly after his arrival in Rome. Numerous publications over the following decades called for a calendar reform, among them two papers sent to the Vatican by the University of Salamanca in and , [13] but the project was not taken up again until the s, and implemented only under Pope Gregory XIII r. Preparation In , the Council of Trent authorized Pope Paul III to reform the calendar, requiring that the date of the vernal equinox be restored to that which it held at the time of the First Council of Nicaea in and that an alteration to the calendar be designed to prevent future drift. This would allow for a more consistent and accurate scheduling of the feast of Easter. In , a Compendium was sent to expert mathematicians outside the reform commission for comments. Some of these experts, including Giambattista Benedetti and Giuseppe Moletto , believed Easter should be computed from the true motions of the sun and moon, rather than using a tabular method, but these recommendations were not adopted. He also produced an original and practical scheme for adjusting the epacts of the moon when calculating the annual date of Easter, solving a long-standing obstacle to calendar reform. Tycho Brahe also noticed discrepancies.

He noted that it is consistent with the tropical year of the Alfonsine tables and with the mean tropical year of Copernicus *De revolutionibus* and Reinhold Prutenic tables. The three mean tropical years in Babylonian sexagesimals as the excess over days the way they would have been extracted from the tables of mean longitude were 14,33,9,57 Alfonsine , 14,33,11,12 Copernicus and 14,33,9,24 Reinhold. All values are the same to two places. Firstly, he proposed a correction to the length of the year. The mean tropical year is 365.2422 days. The discrepancy results in a drift of about three days every years. Lilius proposed that the day drift should be corrected by deleting the Julian leap day on each of its ten occurrences over a period of forty years, thereby providing for a gradual return of the equinox to 21 March. The second component consisted of an approximation which would provide an accurate yet simple, rule-based calendar. The proposed rule was that years divisible by 4 would be leap years only if they were divisible by 100 as well. The year cycle used for the lunar calendar was also to be corrected by one day every 8 years or years 8 times in years along with corrections for the years that are no longer leap years. In fact, a new method for computing the date of Easter was introduced. When the new calendar was put in use, the error accumulated in the 13 centuries since the Council of Nicaea was corrected by a deletion of 10 days. The Julian calendar day Thursday, 4 October was followed by the first day of the Gregorian calendar, Friday, 15 October the cycle of weekdays was not affected. The changes that he was proposing were changes to the civil calendar, over which he had no authority. They required adoption by the civil authorities in each country to have legal effect. Consequently, the days on which Easter and related holidays were celebrated by different Christian Churches again diverged. A month after having decreed the reform, the pope with a brief of 3 April granted to Antonio Lilio, the brother of Luigi Lilio, the exclusive right to publish the calendar for a period of ten years. The *Lunario Novo secondo la nuova riforma* printed by Vincenzo Accolti, one of the first calendars printed in Rome after the reform, notes at the bottom that it was signed with papal authorization and by Lilio *Con licentia delli Superiori*. The papal brief was later revoked, on 20 September , because Antonio Lilio proved unable to keep up with the demand for copies. In these territories, as well as in the Polish-Lithuanian Commonwealth [citation needed] ruled by Anna Jagiellon and in the Papal States, the new calendar was implemented on the date specified by the bull, with Julian Thursday, 4 October , being followed by Gregorian Friday, 15 October. The Spanish and Portuguese colonies followed somewhat later *de facto* because of delay in communication. For example, the British could not bring themselves to adopt the Catholic system explicitly: Sweden followed in 1700. Prior to 1700, Turkey used the lunar Islamic calendar with the Hegira era for general purposes and the Julian calendar for fiscal purposes. The start of the fiscal year was eventually fixed at 1 March and the year number was roughly equivalent to the Hegira year see Rumi calendar. As the solar year is longer than the lunar year this originally entailed the use of "escape years" every so often when the number of the fiscal year would jump. From 1 March the fiscal year became Gregorian, rather than Julian. On 1 January the use of the Gregorian calendar was extended to include use for general purposes and the number of the year became the same as in most other countries. Adoption of the Gregorian Calendar

Chapter 6 : The difference between the Muslim and Jewish lunar calendars - Beliefnet

For that reason, the Islamic calendar cannot be used for agriculture or other activities traditionally linked to the seasons, and most Muslim countries officially use the Gregorian calendar as their civil calendar alongside the Hijri system.

What is the Gregorian calendar? The Gregorian calendar was first proposed by Aloysius Lilius because the mean year in the Julian Calendar was slightly long, causing the vernal equinox to slowly advance earlier in the calendar year. On 5 October, the Gregorian calendar was actively adopted in the western world for the first time. It needed an adjustment to correct 11 accumulated days from the Julian calendar. Non-Catholic countries such as Scotland, Britain and its colonies still used the Julian calendar up until, and some Asian countries were still using the Julian calendar up until the early twentieth century. The tenth month in the Hebrew calendar is called "Tamuz". It usually falls out around July time. What is the difference between a Jewish leap year and a leap year on the Gregorian calendar? During a Jewish leap year, a whole month-Adar II, is added. On the Gregorian calendar only February 29th is added. Adar II is added every years for a total of 7 times in a 19 year cycle. How does the Gregorian calendar differ from the Julian calendar? The Julian calendar year was exactly The Gregorian calendar year is While the difference is small Over the course of 1, years, the date of the vernal equinox had advanced by ten days. Since the Roman Catholic Church used the equinox to set the date of Easter, they considered it undesirable for it to be continually getting earlier in the year, so a change to the calendar was ordered by Pope Gregory XIII in The Julian Calendar is exactly Therefore, every fourth year, an extra day is added, called leap year. An actual solar year is 11 minutes less than The Julian Calendar gained three days every years. The Gregorian Calendar was adopted in the 16th century which dropping some calendar days, in order to realign the calendar and the equinox times. What is the difference between Julian and Gregorian calendars? The fundamental difference between the Julian and Gregorian calendars is this: The Julian calendar year is exactly The Gregorian calendar year is exactly The Julian calendar was adopted in 45 BC. Over the course of the next 1, years, the date of the vernal equinox had advanced by ten days. The cumulative difference between the two calendars continues to increase, by three days in every four centuries. By the time the British Empire, including its American colonies, adopted the Gregorian calendar in, the difference was 11 days. The Julian calendar is currently 13 days behind the Gregorian calendar. On March 1, , the difference will become 14 days. How is the Islamic calendar different from the Gregorian calendar? It is either or days long, and began in the year CE when the Prophet Muhammad migrated from Mecca to Medina. The Gregorian calendar is solar. It is about days long, and numbers 0 CE at the birth of Jesus. Adar is the first month on the Hebrew calendar, and it falls in March or April. What is the difference between Gregorian calendar and Roman calendar? The difference is the accuracy of mathematical computation of the length of the day, in essence. The Roman calendar was fairly accurate considering the computation tools of the time, quite accurate, but over a period of many years, it was off by a period of then ten days. The Gregorian calendar proposal used more precise mathematics, and deduced that the calendar had lost ten days since the calendar of Rome was established. The current Gregorian calendar is accurate to about one day every several thousand years.

Chapter 7 : Calendar Converter

these include calendars in widespread use, like the Gregorian, Hebrew, Islamic, and Chinese, as well as more obscure calendars, such as the Coptic and Bahá'í, plus many more that are of historical importance like the Egyptian, Julian, Mayan, Old Hindu, and French Revolutionary.

Description of secular and religious calendars: The Gregorian Calendar is increasingly used for commerce world-wide. Julius Caesar had asked them to design a calendar that was more accurate than the ones which were in use at the time. Today, most Christian theologians believe that Jesus was born sometime between 4 and 7 BCE, probably in the fall of the year. Unfortunately, the Julian calendar was too long by about 11 minutes and 14 seconds each year, or one day every years. By the late 16th century, this error had accumulated to an intolerable 10 days. Pope Gregory XIII commissioned a study to decide how to correct it and how to prevent it from drifting in the future. The solution was to make most of the century years into non-leap years; only those which were evenly divisible by e. Riots were widespread among the public because many believed that they had lost 10 or 11 days of life. Greece did not convert to the Gregorian calendar until There remain many religiously based calendars which are different from the Gregorian calendar. Most Eastern Orthodox Churches continue to use the Julian calendar. It is currently 13 days later than the Gregorian calendar. The gap continues to grow. Romanian and Greek Orthodox do not follow this tradition. Buddhist calendars vary according to location. Wikipedia describes a number of other Buddhist Calendars. The abbreviation "AM" for Anno Mundi is used. The Jewish calendar is moon-based. An additional month is added every third or fourth year. Thus, their year is of to days in duration. It is a lunar calendar that repeats itself every 30 years. Year 2, 5, 7, 10, 13, 16, 18, 21, 24, 26 and 29 are leap years and have days. Common non leap years have days. That is 11 days shorter than the solar year. When measured by the Gregorian calendar, about three times a century, Muslims can celebrate two new years. In some countries, each lunar month begins with the visible sighting of the crescent of the new moon. A month, and thus a holy day, is often delayed a day from the time that astronomical calculations would predict them. The date is often followed by the letters SE. The original base date for the calendar was at a planetary alignment involving Jupiter in BCE. The Sikh calendar is based on the start of the Khalsa Era three centuries ago. Their year begins on Apr or The date is often followed by the letters KE. Their calendar has 19 months, each with 19 days, for a total of days per year. The final month has 5 "gatha" days added. Initially, an additional month of 30 days was added once every years. New Year has been gradually moving earlier about 1 day every 4 years from its original date in mid-March. It now occurs in the Fall. Khurshedji Cama proposed a revised calendar in CE. This calendar is used by Zoroastrians around the world, except India. This is regarded as the year in which the group was founded. They have abandoned the Gregorian calendar. Years following are called "Anno de Creativitat. The years before I. It commemorates the "white" victory over the last organized resistance during the Native American genocide in 83 PC CE. His calendar uses the Gregorian Calendar, but renumbers the years. The Mayan calendar expresses a date in a complex five number format.

Chapter 8 : The Jewish Calendar and the Gregorian Calendar

The Gregorian Calendar, also known as the Western or Christian Calendar, is the most widely used calendar in the world today. Its predecessor, the Julian Calendar, was replaced because it did not properly reflect the actual time it takes the Earth to circle once around the Sun, known as a tropical year.

Hijri year In pre-Islamic Arabia, it was customary to identify a year after a major event which took place in it. Thus, according to Islamic tradition, Abraha , governor of Yemen, then a province of the Christian Kingdom of Aksum Ethiopia , attempted to destroy the Kaaba with an army which included several elephants. The raid was unsuccessful, but that year became known as the Year of the Elephant , during which Muhammad was born sura al-Fil. The year of the order of fighting. The year of the trial. The year of congratulation on marriage. The year of the earthquake. The year of enquiring. The year of gaining victory. The year of equality. The year of exemption. The year of farewell. This report convinced Umar of the need to introduce an era for Muslims. Uthman ibn Affan then suggested that the months begin with Muharram, in line with the established custom of the Arabs at that time. This Julian date 16 July was determined by medieval Muslim astronomers by projecting back in time their own tabular Islamic calendar , which had alternating and day months in each lunar year plus eleven leap days every 30 years. Astronomical considerations This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. October Learn how and when to remove this template message Due to the fact that the Islamic calendar relies on certain variable methods of observation which are used to determine its month-start-dates, the start-dates of its months sometimes vary slightly from the month-start-dates of the astronomical lunar calendar , which are based directly on astronomical calculations. Still, the Islamic calendar seldom varies by more than three days from the astronomical-lunar-calendar system, and roughly approximates it. Both the Islamic calendar and the astronomical-lunar-calendar take no account of the solar year in their calculations, and thus both of these strictly lunar based calendar systems have no ability to reckon the timing of the four seasons of the year. In the astronomical-lunar-calendar system, a year of 12 lunar months is In this calendar system, lunar months begin precisely at the time of the monthly "conjunction", when the Moon is located most directly between the Earth and the Sun. The month is defined as the average duration of a revolution of the Moon around the Earth By convention, months of 30 days and 29 days succeed each other, adding up over two successive months to 59 full days. This leaves only a small monthly variation of 44 minutes to account for, which adds up to a total of 24 hours i. To settle accounts, it is sufficient to add one day every three years to the lunar calendar, in the same way that one adds one day to the Gregorian calendar every four years. The Islamic calendar, however, is based on a different set of conventions being used for the determination of the month-start-dates. Traditionally, the first day of each month is the day beginning at sunset of the first sighting of the hilal crescent moon shortly after sunset. If the hilal is not observed immediately after the 29th day of a month either because clouds block its view or because the western sky is still too bright when the moon sets , then the day that begins at that sunset is the 30th. Such a sighting has to be made by one or more trustworthy men testifying before a committee of Muslim leaders. Determining the most likely day that the hilal could be observed was a motivation for Muslim interest in astronomy, which put Islam in the forefront of that science for many centuries. Still, due to the fact that both lunar reckoning systems are ultimately based on the lunar cycle itself, both systems still do roughly correspond to one another, never being more than three days out of synch with one another. Clerics observe the moon. This traditional practice for the determination of the start-date of the month is still followed in the overwhelming majority of Muslim countries. Each Islamic state proceeds with its own monthly observation of the new moon or, failing that, awaits the completion of 30 days before declaring the beginning of a new month on its territory. But, the lunar crescent becomes visible only some 17 hours after the conjunction, and only subject to the existence of a number of favourable conditions relative to weather, time, geographic location, as well as various astronomical parameters. Due to the interplay of all these factors, the beginning of each month differs from one Muslim country to another, during the 48 hour period following the conjunction. The

information provided by the calendar in any country does not extend beyond the current month. A number of Muslim countries try to overcome some of these difficulties by applying different astronomy-related rules to determine the beginning of months. Thus, Malaysia, Indonesia, and a few others begin each month at sunset on the first day that the moon sets after the sun moonset after sunset. In Egypt, the month begins at sunset on the first day that the moon sets at least five minutes after the sun. A detailed analysis of the available data shows, however, that there are major discrepancies between what countries say they do on this subject, and what they actually do. In some instances, what a country says it does is impossible. Theological considerations

If the Islamic calendar were prepared using astronomical calculations, Muslims throughout the Muslim world could use it to meet all their needs, the way they use the Gregorian calendar today. But, there are divergent views on whether it is licit to do so. This resulted in a division of the Muslim community of France, with some members following the new rule, and others following the Saudi announcement. From 1 Muharrem AH 21 November until 29 Zilhicce 24 October the computed Turkish lunar calendar was based on the following rule: Nevertheless, the religious authorities also allow the testimony of less experienced observers and thus often announce the sighting of the lunar crescent on a date when none of the official committees could see it. The country also uses the Umm al-Qura calendar, based on astronomical calculations, but this is restricted to administrative purposes. The parameters used in the establishment of this calendar underwent significant changes over the past decade. This often caused the Saudis to celebrate holy days one or even two days before other predominantly Muslim countries, including the dates for the Hajj, which can only be dated using Saudi dates because it is performed in Mecca. For AH 1422, if moonset occurred after sunset at Mecca, then the day beginning at that sunset was the first day of a Saudi month, essentially the same rule used by Malaysia, Indonesia, and others except for the location from which the hilal was observed. Since the beginning of AH 16 March, the rule has been clarified a little by requiring the geocentric conjunction of the sun and moon to occur before sunset, in addition to requiring moonset to occur after sunset at Mecca. This ensures that the moon has moved past the sun by sunset, even though the sky may still be too bright immediately before moonset to actually see the crescent. In 2001, the Islamic Society of North America, the Fiqh Council of North America and the European Council for Fatwa and Research announced that they will henceforth use a calendar based on calculations using the same parameters as the Umm al-Qura calendar to determine well in advance the beginning of all lunar months and therefore the days associated with all religious observances. Tabular Islamic calendar

The Tabular Islamic calendar is a rule-based variation of the Islamic calendar, in which months are worked out by arithmetic rules rather than by observation or astronomical calculation. It has a year cycle with 11 leap years of 355 days and 19 years of 354 days. In the long term, it is accurate to one day in about 2, solar years or 2, lunar years. It also deviates up to about one or two days in the short term. Kuwaiti algorithm

Main article: Microsoft claimed that the variant is based on a statistical analysis of historical data from Kuwait, however it matches a known tabular calendar.

Chapter 9 : Islamic, Muslim, Hijri Calendar in

The Jewish and Chinese calendars are solar-lunar. A month is a real month - the time it takes for the moon to circle the earth. A year is a real year - the time it takes for the earth to.

The Gregorian calendar was proclaimed by Pope Gregory XIII and took effect in most Catholic states in 1582, in which October 4, of the Julian calendar was followed by October 15 in the new calendar, correcting for the accumulated discrepancy between the Julian calendar and the equinox as of that date. Britain and her colonies including what is now the United States, did not switch to the Gregorian calendar until 1752, when Wednesday 2nd September in the Julian calendar dawned as Thursday the 14th in the Gregorian. The Gregorian calendar is a minor correction to the Julian. In the Julian calendar every fourth year is a leap year in which February has 29, not 28 days, but in the Gregorian, years divisible by 4 are not leap years unless they are also divisible by 100. How prescient was Pope Gregory! As in the Julian calendar, days are considered to begin at midnight. The average length of a year in the Gregorian calendar is 365.2425 days. As a purely solar calendar, no attempt is made to synchronise the start of months to the phases of the Moon. In doing so, this implementation uses the convention that the year prior to year 1 is year 0. The date December 30th, 0 in the Gregorian calendar corresponds to January 1st, 1 in the Julian calendar. A slight modification of the Gregorian calendar would make it even more precise. If you add the additional rule that years evenly divisible by 100 are not leap years, you obtain an average solar year of 365.2425 days. Julian Day Julian day: Astronomers, unlike historians, frequently need to do arithmetic with dates. When is the next? Julian days simply enumerate the days and fraction which have elapsed since the start of the Julian era, which is defined as beginning at noon on Monday, 1st January of year B. This date is defined in terms of a cycle of years, but has the additional advantage that all known historical astronomical observations bear positive Julian day numbers, and periods can be determined and events extrapolated by simple addition and subtraction. Julian dates are a tad eccentric in starting at noon, but then so are astronomers and systems programmers! But even the Julian day convention bears witness to the eurocentrism of 19th century astronomy—noon at Greenwich is midnight on the other side of the world. But the Julian day notation is so deeply embedded in astronomy that it is unlikely to be displaced at any time in the foreseeable future. It is an ideal system for storing dates in computer programs, free of cultural bias and discontinuities at various dates, and can be readily transformed into other calendar systems, as the source code for this page illustrates. While any event in recorded human history can be written as a positive Julian day number, when working with contemporary events all those digits can be cumbersome. Modified Julian Days are widely used to specify the epoch in tables of orbital elements of artificial Earth satellites. Since no such objects existed prior to October 4, 1957, all satellite-related MJDs are positive. The Julian calendar differs from the Gregorian only in the determination of leap years, lacking the correction for years divisible by 100 and in the Gregorian calendar. In the Julian calendar, any positive year is a leap year if divisible by 4. Negative years are leap years if the absolute value divided by 4 yields a remainder of 1. Days are considered to begin at midnight. In the Julian calendar the average year has a length of 365.25 days. The calendar thus accumulates one day of error with respect to the solar year every 4 years. Being a purely solar calendar, no attempt is made to synchronise the start of months to the phases of the Moon. In addition, there are constraints on which days of the week on which a year can begin and to shift otherwise required extra days to prior years to keep the length of the year within the prescribed bounds. Years are classified as common normal or embolismic leap years which occur in a 19 year cycle in years 3, 6, 8, 11, 14, 17, and 19. Further, years may be deficient, regular, or complete, having respectively 354, 355, or days in a common year and 355, 356, or days in embolismic years. Days are defined as beginning at sunset, and the calendar begins at sunset the night before Monday, October 7, 4713 B.C. Days are numbered with Sunday as day 1, through Saturday: The average length of a month is 29.5306 days. Alignment with the solar year is better than the Julian calendar, but inferior to the Gregorian. The average length of a year is 365.2422 days. The Islamic calendar is purely lunar and consists of twelve alternating months of 30 and 29 days, with the final 29 day month extended to 30 days during leap years. Leap years follow a 30 year cycle and occur in years 1, 5, 7, 10, 13, 16, 18, 21, 24, 26, and 29. Days are considered to begin at sunset. The calendar begins on Friday, July 16th, 622 C. The

names for the days are just their numbers: Sunday is the first day and Saturday the seventh; the week is considered to begin on Saturday. Since the calendar is fixed to the Moon, not the solar year, the months shift with respect to the seasons, with each month beginning about 11 days earlier in each successive solar year. The calendar presented here is the most commonly used civil calendar in the Islamic world; for religious purposes months are defined to start with the first observation of the crescent of the new Moon. The modern Persian calendar was adopted in 1925, supplanting while retaining the month names of a traditional calendar dating from the eleventh century. The calendar consists of 12 months, the first six of which are 31 days, the next five 30 days, and the final month 29 days in a normal year and 30 days in a leap year. Days begin at midnight in the standard time zone. There is no leap year rule; day years do not recur in a regular pattern but instead occur whenever that number of days elapse between equinoxes at the reference meridian. The calendar therefore stays perfectly aligned with the seasons. No attempt is made to synchronise months with the phases of the Moon. There is some controversy about the reference meridian at which the equinox is determined in this calendar. Various sources cite Tehran, Esfahan, and the central meridian of Iran Standard Time as that where the equinox is determined; in this implementation, the Iran Standard Time longitude is used, as it appears that this is the criterion used in Iran today. Ahmad Birashk proposed an alternative means of determining leap years for the Persian calendar. His technique avoids the need to determine the moment of the astronomical equinox, replacing it with a very complex leap year structure. Years are grouped into cycles which begin with four normal years after which every fourth subsequent year in the cycle is a leap year. Cycles are grouped into grand cycles of either years composed of cycles of 29, 33, 33, and 33 years or years, containing cycles of of 29, 33, 33, and 37 years. A great grand cycle is composed of 21 consecutive year grand cycles and a final grand cycle, for a total of years. The pattern of normal and leap years which began in will not repeat until the year ! This is not the calendar in use in Iran! It is presented here solely because there are many computer implementations of the Persian calendar which use it with which users may wish to compare results , and because its baroque complexity enthralls programmers like myself. Each year great grand cycle contains normal years of days and leap years of days, with the average year length over the great grand cycle of So close is this to the actual solar tropical year of As a purely solar calendar, months are not synchronised with the phases of the Moon.