## I'm not a bot



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If youre looking to add a Roblox gift card to your iPad, youre in the right place. This guide will walk you through the steps to redeem your gift card, allowing you to unlock new features, buy Robux, or get a premium membership. The whole process is simple and can be done in just a few minutes. Lets get started! Redeeming a Roblox gift card on an
iPad involves a few straightforward steps. By following the instructions below, youll be able to enjoy your Roblox app on your iPad. Make sure youre logged into the account where you want to redeem the gift card. If you don't have the app, download it from the App Store. Step 2, tap on the Avatar icon at the
bottom of the screen. This will take you to your avatars customization page. Its where you can change your characters look and access other account settings. Step 3, locate the gear icon (settings) on the top-right corner of the screen, and tap on it. This will open a menu with various options related to your account and app settings. Step 4, in the
menu, find and select the option that says Redeem Gift Card. This will take you to a new page where you can enter the code from your redemption by
following any on-screen prompts. Sometimes, you might need to verify certain details before the process is completed these steps, your Robux or other perks should appear in your Robux or membership will be credited to your account. Once youve completed these steps, your Robux or other perks should appear in your Robux or membership will be credited to your account. Once youve completed these steps, your Robux or other perks should appear in your Robux or membership will be credited to your account.
upgrade your avatar, or enhance your gaming experience. Always double-check the code before redeeming to avoid errors. If the app doesnt work, try using the Roblox website instead. Keep your gift card until you see the Roblox or membership in your account. Make sure your iPad has a stable internet connection. Update the Roblox app to the latest
version for the best experience. Double-check the code for any typos and ensure it hasnt been used before. If it still doesnt work, contact Roblox support. Yes, you must be logged into a Roblox account to redeem a gift card. Robux or memberships usually appear
instantly, but in some cases, it may take a few minutes. No, once the Roblox app. Go to the Avatar page. Tap on the gear icon. Select Redeem Gift Card. Enter the code. Confirm redemption. Adding a Roblox gift card to your iPad is a piece of cake when you
know the right steps. With just a few taps, you can unlock a world of fun and new possibilities in your favorite games. Remember, Roblox is continually updating, and sometimes the interface may change slightly, but the core process usually remains the same. So, the next time you receive a Roblox gift card, dont let it sit around collecting dust. Follow
our guide and dive back into the fun! Enjoy customizing your avatar, exploring new games, and perhaps, even making some new friends along the way. Happy gaming! Matthew Burleigh has been writing tech tutorials since 2008. His writing has appeared on dozens of different websites and been read over 50 million times. After receiving his Bachelors
and Masters degrees in Computer Science he spent several years working in IT management for small businesses. However, he now works full time writing content online and creating websites. His main writing topics include iPhones, Microsoft Office, Google Apps, Android, and Photoshop, but he has also written about many other tech topics as
well.Read his full bio here. Share copy and redistribute the material in any medium or format for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit
provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licenser endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You
may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation. No warranties are given. The license may not give you all of the
permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Roblox is the ultimate virtual universe that lets you create, share experiences with friends, and be anything you can imagine. Join millions of people and discover an infinite variety of immersive
experiences created by a global community! Already have an account? Log in with your existing Roblox account and explore the infinite metaverse of Roblox. MILLIONS OF EXPERIENCESIn the mood for an epic adventure? Want to compete against rivals worldwide? Or do you just want to hang out and chat with your friends online? A growing library
of experiences created by the community means theres always something new and exciting for you every day. EXPLORE TOGETHER ANYTIME, ANYWHERETake the fun on the go. Roblox features full cross-platform support, meaning you can join your friends and millions of other people on their computers, mobile devices, Xbox One, or VR
headsets.BE ANYTHING YOU CAN IMAGINEBe creative and show off your unique style! Customize your avatar with tons of hats, shirts, faces, gear, and more. With an ever-expanding catalog of items, theres no limit to the looks you can create. CHAT WITH FRIENDSParty is a seamless way for up to six friends to group up and jump into an experience
together. Join your friends and stay together as you move across experiences. 13+ users can also use Party chat to text. It's never been easier to coordinate and communicate all on Roblox. CREATE YOUR OWN EXPERIENCES: POLICY: GUIDE: OF USE: NOTE: A network connection is required to join. Roblox works best over Wi-Fi.Safety starts with
understanding how developers collect and share your data. Data privacy and security practices may vary based on your use, region, and age. The developer provided this information and may update it over time. This app may share these data types with third parties Location, Personal info and 3 others This app may collect these data types Location,
Personal info and 6 othersData is encrypted in transitYou can request that data be deletedRatings and reviews are verifiedinfo_outlineRatings are verifiedinfo_outlineRatings and reviews are verified
otherwise I never would've been playing this long. That aside, there are quite a few issues regarding connection. I'm on a brand new phone, a 2025 MotoG Stylus 5G, but it almost always kicks me using error code 279, when there is no problem with my Wi-Fi. Please, fix this, otherwise my rating will keep going down.6,563 people found this reviews
helpfulDid you find this helpful? Flag inappropriateShow review historyThe game is very excellent, there are so many games to choose from and I can change my avatar, but I have experienced an error: 1. When I move my joystick, my camera makes it move towards the place I move the joystick I, even when I have but it on Classic Camera mode. And
I also have a suggestion: Can you add back TIX and Builder's Club, so new players can experience it? And also, why did you add Parental Controld? That's just showing you personal information that's supposed to be private. 3,383 people found this review helpful Plan Vs. fan)I love this app. Millions of games to
choose from, although a lot of them are just copies/ripoffs of other games. I heard regional pricing is a thing now where it changes prices on clothing, accessories, etc. I think it's a little unfair, especially because one accessory, no matter the size, costs 75 Robux for me, and for others way less. Also, the refund system is a little confusing. I have
messages stating they'll refund me Robux, but they haven't refunded me anything for about a year now.1,606 people found this review helpfulDid you find this helpful?To make Roblox work better for you, we deliver updates regularly. These updates include bug fixes and improvements for speed and reliability.flagFlag as inappropriate I have been
playing Roblox for about fifteen years, and it is a miracle to see how Roblox upgraded since then. I bet you didnt know how wonderful Roblox was way back in 2005. Spare a few minutes for yourself because I am about to tell you 52 amazing Roblox for about fifteen years, and it is a miracle to see how Roblox facts you may not know:1. David
Baszucki, Founder and CEO of RobloxDavid Baszucki is the person who created Roblox. He is a talented guy who studied engineering, programming, and also is a game developer. 2. A 2D Physics Simulator dealt with only boxes and ropes. He used
his creativity with upgraded technologies and made a 3D world with cool characters and items. 3. Roblox was originally called Dynablocks bynablocks bynablocks is tough to pronounce, they renamed it to Roblox. As for now, if you type in roblox.com, it will redirect you to Roblox. But, in 2003, typing
dynablocks.com shifted to Roblox.4. The oof sound on Roblox is Uuuuh. If you search in the Roblox folders, you will see a soundtrack named uuuuh.wav.Heres a complete guide on how to use the ROBLOX Kill Script.5. Robux was called Roblox Foints.
Points. Every time someone enters a game, the admin received one Roblox Point.6. Roblox used to have a second currency (Robux to Tix.) Roblox used to have a second currency program. In that program, users can trade the two
currencies between Robux and Tix. This system is no longer available. Four tickets = 1 RobuckIn 2008, there were two Roblox currencies. One was Roblox Points, and the other one was Tickets, in which four tickets were equivalent to one Robuck. Banned for using Minecraft wordDevelopers banned users from Roblox if they would utter the word
Minecraft in Roblox.10. Ten Tix for daily login. As a result, players created multiple accounts during that session, and Roblox was bound to form a Captcha rule.11. Unlimited friends listing friends listing friends listing friends listing friends listing friends listing friends friends friends friends listing friends listing friends listing friends friends
feature.12. Best friends listOne of the most fantastic features of Roblox was the Best Friend feature, users can see the selected players list whom they are more comfortable with.Losing a Roblox account is scary for any user.13. The fastest-selling item on Roblox under 5 seconds was
the skater hat. It is also known as Purple indy.14. T-shirt hack in RobloxWearing the Nate2800 shirt would create crystals all over the avatar body. This design wasnt from Roblox. A young boy hacked Roblox and made this shirt.15. Gave real-life i-pads in 2012 for buying one-of-a-kind tablet items.16. Banned Trading
itemsTrading any items was against the rules in 2011, as 99% of the trades were a scam.17. No mouth if you use snake eyes faceSnake Eye is an accessory, the mouth of the avatar disappears. PRO TIP: Support your favorite YouTubers usingRoblox star codes. 18. Bookbegg a hat accessory Bookbegg is a hat
accessory that looks like a bag. It isnt a glitch as Roblox confirmed it.19. Bookbegg applies on faceBookbegg applies on the avatar face being a hat accessory, which isnt any glitch at all.20. Only nine people own a limited glitched leopard fedora hat.21. Eighteen thousand eight hundred and sixteen Roblox accounts hold the Roblox epic face.22. R15
gears owned certain custom periastron poses.23. Dominus Empyreus item is the most valuable item on Roblox.24. Dominus Empyreus item stolen from Diablo 3 game 25. Red-banded top hat give away for those who identified bugs on Roblox.24. Dominus Empyreus item stolen from Diablo 3 game 25. Red-banded top hat 27. The Menu bar is actually called Hamburger 28. Free Check it
faces in John75s inventory.29. First game with 1M visits is Mikes Paintball30. Groups feature added in 200931. First group ever created is called RobloHunks32. TradeBots33. David Baszucki stands in number one position for a Robux value of $186,906,027.34. Shedletsky is married to Roblox admin BrightEyes in Real life35. In-game badges give away
started in 200936, 100 Robux to add a badge to your game 37. A community dedicated to badge collectors 38. Only 4 people have over 30,000 badges 39. Roblox had a developer exchange system for exchange system for exchange system for real money 40. In 2015, Teh Master was the first person to get a $50,000 payout through
the developer exchange program 41. Roblox physics engine makes people create games on Roblox Studio 42. Roblox is free to play 43. Builders receive more options than the normal players 44. Roblox physics engine was revamped to an engine called PGS solver 45. Roblox is ahead of Minecraft with 1M+ users 46. Roblox #1 game in the US 47. Roblox
pays 30M dollars to their game developers 48. The biggest cross-platform exposure game 49. High Privacy Protection Act) 50. Biggest platform to help children learn programs and coding at a young age 51. Sethycakes was the first person to reach 1M Robux 52.?
love u showed a horrifying clown rubbing his face Roblox uses cookies to offer you a better experience. For further information, including information, please refer to our Privacy and Cookie Policy. Check Always open links for URL: Roblox Protocol and click Open URL:
Roblox Protocol in the dialog box above to join experiences faster in the future! The Roblox installer should download shortly. If it doesnt, start the download shortly it doesnt, start the download shortly. If it doesnt, start the download shortly it doesnt, start the download short
Channel Sending Robux via gift cards is more common than ever, but figuring out how to redeem Robux on iPad, covering everything
you need to know to successfully add Robux gift card on iPad funds to your account. Using your Robux Gift Card iPad process should be simple, and well make sure it is. Maybe you just got a gift card for your birthday, or perhaps you purchased one yourself. Whatever the case, getting those Robux loaded onto your account using your iPad is
straightforward. Well cover the primary methods, troubleshoot common issues, and ensure you understand the whole process from start to finish. Before You Begin: What Youll NeedBefore diving into the redemption steps, lets make sure you have everything ready. Its simple, but having these items on hand will make the process smoother: Your iPad
Ensure its charged and connected to the internet. A Stable Internet Connection: A reliable Wi-Fi connection is best to avoid interruptions during the redemption process. Your Robbux Gift Card: Have the physical card or the digital code ready. If its a physical card, youll need
to gently scratch off the protective covering on the back to reveal the PIN code. Be careful not to scratch too hard, or you might damage the numbers!1st Method: How to Redeem Robux on iPad Using the Roblox AppThe most direct way to add Robux from a gift card on your iPad is often through the official Roblox app itself. If you don't have it yet,
download it for free from the Apple App Store. Once installed and ready, follow these steps: Redeem Roblox App (for all iOS devices) Launch the Roblox App
it.Initiate Redemption: On the Gift Cards screen, tap the button that says Redeem Card or similar. (do checkout Robux rates)Enter Your PIN: This is the crucial step. Carefully type the PIN code from your Robux gift card into the field provided. Digital codes can often be copied and pasted, but for physical cards, type slowly and double-check each
character. Remember, these codes can be a mix of letters and numbers. Tap Redeem: Once youre confident the PIN is correct, tap the Redeem button. The system will process your request. Confirmation: If the code is valid and entered correctly, you should see a success message confirming the redemption. It might tell you how much Robux or Credit
has been added. Congratulations! Youve successfully used the app to add Robux gift card on iPad. 2nd Method: Using a Web Browser on Your iPad (Safari, Chrome, etc.) Sometimes, users prefer redeeming codes through the official Roblox website, even on an iPad. This method works just as well and can be a good alternative if you encounter issues
with the app. Redeem Robux on iPad via Web Browser:Open Your Web Browser: Launch Safari or any other web browser you use on your iPad. Go to the Roblox Redemption page. In the address bar, type roblox.com/redeem and press Go. This will take you directly to the official gift card redemption page. Log In: If you arent already logged into the
Roblox website on your browser, youll be prompted to enter your username and password. Ensure youre logging into the correct account where you want the Robux added. Enter Your PIN: Youll see a clear field on the page asking for your gift card code (PIN). Carefully type or paste the code here. Click Redeem: Press the green Redeem button next to
the code entry field. Complete Verification (If Prompted): Sometimes, Roblox asks you to complete a quick verification challenge (like picking the right image) to prove youre not a bot. Follow the on-screen instructions if this appears. Confirmation: After processing, the website will display a success message indicating the Robux or Credit amount
added to your account. Using the website is another reliable way to handle your Robux Gift Card iPad redemption. Also Read: Robux to Euro Calculator Understanding Your Bift Card: Robux to Euro Calculator Understand Your Bift Card: Robux to Euro Calculator Understanding Your Bift Card: Robux to Euro Calculator Understanding Your Bift Card: 
has been added. Checking Your Robux Balance After Redemption After you redeem Robux on iPad, youll naturally want to see your updated balance. Heres how: In the Roblox App: Tap the Robux symbol (looks like a hexagonal nut), usually visible at the top of the screen. Your current Robux total should be displayed. On the Roblox Website: Log in to
your account at Roblox.com. Your Robux balance is typically shown in the upper-right corner of the page. Sometimes, it might take a minute or two for the balance to update, especially if the servers are busy. If it doesnt show up immediately, try closing and reopening the app or refreshing the website page after a short wait. Troubleshooting Common
Redemption IssuesEncountering a problem when trying to add Robux gift card on iPad? Dont worry, it happens sometimes. Here are common culprit. Carefully re-enter the PIN, paying close attention to similar-looking characters (like O and 0, I and
l).Damaged Card: If the physical cards code was scratched too aggressively, some digits might be illegible. Try to decipher them as best as possible. If its truly unreadable, you may need to contact the retailer where the card was purchased or Roblox Support with proof of purchase. Already Redeemed: The code might have already been used on your
account or another account. Check your transaction history on the Roblox website if possible. Region Lock: Some gift cards are region-specific. Ensure the gift cards dont expire, check any fine print on the card or packaging just in
try redeeming the code again. Also Read: Robux to GBPApp or Browser Glitches Restart the App/Browser: Close the Roblox app or web browser completely and reopen it. Restart Your iPad: A simple restart can often resolve temporary glitches. Press and hold the power button and slide to power off, then turn it back on. Clear Cache (Browser): If using a
web browser, clearing the browsers cache and cookies might help. You can find this option in your chosen browser). Reinstall the App: As a last resort, if the app consistently fails, try deleting the Roblox app (press and hold the icon, then tap Remove App > Delete App) and reinstalling it from the App Store. Logged
Into the Wrong AccountAlways double-check that you are logged into the intended Roblox account before hitting redeem. Redeemed Robux cannot be transferred to other accounts. When to Contact Roblox SupportIf youve tried all the
troubleshooting steps and are still unable to redeem your Robux Gift Card iPad, its time to contact Roblox Support directly through their official website (roblox.com/support). Be prepared to provide: Your Roblox username. The gift card PIN code. Proof of purchase (like a store receipt or digital confirmation). Any error messages you received. Keeping
Your Gift Card Codes SecureTreat your Robux gift card PIN like cash! Dont share the code with anyone you dont trust. Be wary of online scams asking for your gift card details. Only redeem codes through the official Roblox app or the roblox.com/redeem website. Enjoy Your Robux! Successfully redeeming your gift card means you now have Robux to
spend! Explore the Avatar Shop for cool new outfits and accessories, buy game passes for special perks in your favorite experiences, or access other premium content. We hope this detailed guide has made the processofredeeming Robux on iPad clear and simple. Whether you used the app or the website, getting your Robux Gift Card iPad funds into
your account should now be a breeze. Happy gaming! Is a freelance tech writer based in the East Continent, is quite fascinated by modern-day gadgets, smartphones, and all the hype and buzz about modern technology on the Internet. Besides this a part-time photographer and love to travel and explore. Follow me on. Twitter, Facebook Or Simply
Contact Here. Or Email: info@axeetech.com, the free encyclopedia that anyone can edit. 107,583 active editors 7,025,366 articles in EnglishSir William Gordon-Cumming (20July 1848 20May 1930) was a Scottish landowner, soldier and socialite. He was the central figure in the royal baccarat scandal of 1891. He joined the British Army in 1868 and
saw service in South Africa, Egypt and the Sudan; he served with distinction and rose to the rank of lieutenant-colonel. An adventurer, he also hunted in the US and India. A friend of Edward, Prince of Wales, for over 20 years, in 1890 he attended a house party at Tranby Croft, where he took part in a game of baccarat at the behest of the prince.
During the course of two nights' play he was accused of cheating, which he denied. After news of the affair leaked out, he sued five members of the party for slander; Edward was called as a witness. The case was a public spectacle in the UK and abroad, but the verdict went against Gordon-Cumming and he was ostracised from polite society. After the
court case he married an American heiress, but their relationship was unhappy. (Fullarticle...)Recently featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured: Great Wilbraham (causewayed enclosured)Henry de HinuberHurricane (causewayed enclosur
French West Africa (example pictured) between 1901 and 1920?... that a language riot broke out between members of Our Lady of the Rosary in 1917?... that Paul Among the People treats the Pauline epistles as sources comparable to Homer
Aristophanes and Virgil on Greco-Roman attitudes?... that Gyula Kakas competed at two Olympics in gymnastics, set the Hungarian pole-vault record, and played for a national-champion football club?... that defending champions Bermuda did not compete in the women's football
82.Clashes between Druze militias and the Syrian Armed Forces result in hundreds of deaths. The International Criminal Court issues arrest warrants for Taliban leaders Hibatullah Akhundzada and Abdul Hakim Haqqani over their alleged persecution of women in Afghanistan. Flooding in Central Texas, United States, leaves at least 140 people
dead.Ongoing: Gaza warRussian invasion of UkrainetimelineSudanese civil wartimelineRecent deaths: Andrea GibsonRaymond GuiotFelix BaumgartnerFauja SinghBradley John MurdochFrank BarrieNominate an articleJuly 20Forensic experts at the site of the Suru bombing 1807 French brothers Claude and Nicphore Nipce received a patent for their
Pyrolophore, one of the world's first internal combustion engines. 1951 Abdullah I of Jordan was assassinated while visiting the Al-Aqsa Mosque in Jerusalem. 1976 The Viking 1 lander became the first spacecraft to successfully land on Mars and perform its mission. 1997 USSC onstitution, one of the United States Navy's original six frigates, sailed for
the first time in 116 years after a full restoration. 2015 A suicide attack (aftermath pictured) in Suru, Turkey, for which Islamic State of Iraq and the Levant (ISIL) claimed responsibility, killed 34 people and injured 104 others. Alexander the Great (b.1971) Bruce Lee (d.1973) Gisele Bndchen (b.1980) More anniversaries: July
19July 20July 21ArchiveBy emailList of days of the yearAboutC/2022 E3 (ZTF) is a non-periodic comet from the Oort cloud that was discovered by the Zwicky Transient Facility (ZTF) in 2022. With a comet nucleus of around 1 kilometer, C/2022 E3 rotates on its axis once every 8.5 to 8.7 hours. Its tails of dust and gas extended for
and was visible with the naked eye under moonless dark skies. This photograph of C/2022 E3 was taken in January 2023 and released by the Italian National Institute for AstrophysicsRecently featured: Passion fruitBasilica of StPaul, RabatClouded ApolloArchiveMore featured
picturesCommunity portal The central hub for editors, with resources, links, tasks, and announcements. Village pump Forum for discussions about Wikipedia and the broader Wikimedia movement. Teahouse Ask basic questions about using or editing
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projects: CommonsFree media repository MediaWikiWiki software development Meta-WikiWikimedia project coordination WikisourceFree-content library WikispeciesDirectory of species WikiversityFree learning tools
WikivoyageFree travel guide WiktionaryDictionary and thesaurusThis Wikipedia is written in English. Many other Wikipedias are available; some of the largest are listed below. 1,000,000+ articles Bahasa IndonesiaBahasa MelayuBn-lm-
gCataletinaDanskEestiEsperantoEuskaraMagyarNorsk bokmlRomnSimple EnglishSloveninaSrpskiSrpskohrvatskiKurdLatvieuLietuviNorsk nynorskShqipSloveninaRetrieved from "2This article needs additional citations for verification. Please help
improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. Find sources: "1807" news newspapers books scholar JSTOR (November 2015) (Learn how and when to remove this message) Calendar year Year SMillennium 2 ndmillennium 2 ndmillennium 2 ndmillennium 2 ndmillennium 3 ndmillennium 3 ndmillennium 4 ndmillennium 4 ndmillennium 4 ndmillennium 5 ndmillennium 5 ndmillennium 5 ndmillennium 6 ndmillennium 6
20th century Decades 1780s 1790s 1800s 1810s 1820s Years 1804 1805 1806 1807 1808 1800s 1810s 1820s Years 1804 1805 1806 1807 (MDCCCVII) was a common year starting on Thursday of the
Gregorian calendarand a common year starting on Tuesday of the Julian calendar, the 1807th year of the 2ndmillennium, the 7th year of the 1807th year of the 1807th year of the 2ndmillennium, the 7th year of the 19thcentury, and the 8th year of the 1807th year of the 1807th year of the 2ndmillennium, the 7th year of the 2ndmillennium, the 7th year of the 2ndmillennium, the 7th year of the 19thcentury, and the 8th year of the 1807th year of the 2ndmillennium, the 7th y
calendar, which remained in localized use until 1923. Calendar year 1807 by topicHumanitiesArchaeologyArchitectureArtLiteraturePoetryMusicBy countryAustraliaBrazilCanadaDenmarkFranceGermanyNew ZealandNorwayRussiaSouth AfricaSwedenUnited KingdomUnited StatesOther topicsRail transportScienceSportsLists of leadersSovereign
statesSovereign state leadersTerritorial governorsReligious leadersLawBirth and death categoriesBirthsDeathsEstablishments and disestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmentsDisestablishmen
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British ships from trading with France or its allies.[1]January 20 The Sierra Leone Company, faced with bankruptcy because of the imminent abolition of the slave trade in British government for purchase and transfer of its property to the Crown; Parliament approves the transfer on July 29, and it takes effect on January
1, 1808.[2] February 3 Napoleonic Wars and Anglo-Spanish War: Battle of Montevideo The British Army captures Montevideo from the Spanish Empire, as part of the Russian Empire, and begins fighting at the Battle of Eylau against
Russian and Prussian forces.[3]February 8 Battle of Eylau: Napoleon fights a hard but inconclusive battle against the Russians under Bennigsen. February 10 The Survey in 1878) is established; work begins on August 3, 1816. February 17
Henry Christopher is elected first President of the State of Haiti, ruling the northern part of the country. February 19 Burr conspiracy: In Alabama, former Vice President of the United States Aaron Burr is tried for conspiracy: In Alabama, former Vice President of the United States Aaron Burr is tried for conspiracy.
overwhelming majority.[4]March 2 The United States Congress passes the Act Prohibiting Importation of Slaves "into any port or place within the jurisdiction of the United States ... from any foreign kingdom, place, or country" (to take effect January 1, 1808). March 25The United States Congress passes the Act Prohibiting Importation of Slaves "into any port or place within the jurisdiction of the United States ... from any foreign kingdom, place, or country" (to take effect January 1, 1808). March 25The United States ... from any foreign kingdom, place, or country the slave trade in the property of the United States ... from any foreign kingdom, place, or country the slave trade in the property of the United States ... from any foreign kingdom, place, or country the slave trade in the property of the United States ... from any foreign kingdom slave trade in the property of the United States ... from any foreign kingdom, place, or country the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign kingdom slave trade in the United States ... from any foreign k
most of the British Empire[5] with effect from 1 May (slavery itself is abolished in British colonies in 1833). The Swansea and Mumbles Railway in the world. March 29 H. W. Olbers discovers the asteroid Vesta. April 412 Froberg mutiny: The
British suppress a mutiny at Fort Ricasoli, Malta, by men of the irregularly-recruited Froberg Regiment. April 14 African Institution holds its first meeting in London; it is intended to improve social conditions in Sierra Leone. May 22 A grand jury indicts former Vice President of the United States Aaron Burr for treason. [6] May 24 Siege of Danzig ends
after 6 weeks with Prussian and Russian defenders capitulating to French forces. May 29 Selim III, Ottoman Emperor since 1789, is deposed in favour of his nephew Mustafa IV. May 31 Primitive Methodism originates in an All Day of Prayer at Mow Cop, in the north midlands of England. [7] June 9 The Duke of Portland is chosen as Prime Minister after
the United Kingdom general election. June 10 The Battle of Heilsberg ends in a draw. June 14 Battle of Friedland: Napoleon decisively defeats Bennigsen's Russian army. June 22 Chesapeake Leopard affair: British Royal Navy fourth rate HMSLeopard attacks and boards United States Navy frigate USS Chesapeake off Norfolk, Virginia, seeking
deserters. This act of British aggression plays a role in the run-up to the War of 1812. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, Prussia and Russian Emperor Alexander I ally together against Buenos Aires, during the second failed invasion of the Ro de la Plata. July 79 The Treaties of Tilsit are signed between France, and the properties of the Plata and the
the British. The Prussians are forced to cede more than half their territory, which is formed into the Duchy of Warsaw in their former Polish lands, and the Kingdom of Westphalia in western Germany. The Free City of Danzig is also formed (established September 9 by Napoleon). July 13 With the death of Henry Benedict Stuart, the last Stuart claimant
to the throne of the United Kingdom, Jacobitism comes to an effective end. July 20 Nicphore Nipce is awarded a patent by Napoleon Bonaparte for the Pyrolophore, the world's first internal combustion engine, after it successfully powers a boat upstream on the river Sane in France. August 17 The North River Steamboat, Robert Fulton's first American
steamboat, leaves New York City for Albany on the Hudson River, inaugurating the first commercial steamboat service in the world. September 1 Former U.S. Vice President Aaron Burr is acquitted of treason. He had been accused of plotting to annex parts of Louisiana and Mexico, to become part of an independent republic. September 27 Battle of
Copenhagen: The British Royal Navy bombards Copenhagen with fire bombs and phosphorus rockets, to prevent the Dano-Norwegian navy from surrendering to Napoleon; 30% of the city is destroyed, and 2,000 citizens are killed. September 13
Beethoven's Mass in C major, Op. 86, is premiered, commissioned by Nikolaus I, Prince Esterhzy, and displeasing him.[9]September 27 Napoleon purchases the Borghese art collection, including the Antinous Mondragone, and brings it to Paris.[10]October 9 Prussian Reform Movement: Serfdom is abolished by the October edict.October 13 The
Geological Society of London is founded. October 30 El Escorial Conspiracy: Ferdinand, Prince of Asturias is arrested for conspiring against his father Charles IV of Spain. November 24 Battle of Abrantes, Portugal: The French under Jean-Andoche Junot take the town. November 29 Portuguese Queen Maria I and the Court embark at Lisbon, bound for
Brazil. Rio de Janeiro becomes the Portuguese capital. December 511 Napoleonic Wars: Raid on Griessie on Java in the Dutch port of Griessie on Jav
issues the Milan Decree which confirms the Continental System (i.e. no European country is to trade embargo on all foreign nations. Battle of Hingakaka between two factions of Mori people, the largest battle ever fought in New Zealand, and the last
fought there without firearms.[12] In 1807 or 1808 is fought the Battle of Moremonui, first of the Musket Wars.Robert E. Lee January 13 Napoleon Bonaparte Buford, American general (d. 1870) January 28 Robert McClure, Irish-born Arctic explorer (d. 1873) February
10 Lajos Batthyny, 1st Prime Minister of Hungary (d. 1849)February 27 Henry Wadsworth Longfellow, American poet (d. 1882)[13]March 1 William F. Packer, American politician (d. 1870)April 3 Jane Digby
English adventurer (d. 1881)April 20 John Milton, Governor of Florida (d. 1865)April 26 Charles Auguste Frossard, French general (d. 1873)June 6 Adrien-Franois Servais, Belgian musician (d. 1866)June 16 John Westcott, American surveyor and politician (d. 1888)Giuseppe
GaribaldiJuly 4 Giuseppe Garibaldi, Italian patriot (d. 1882)August 11 David Rice Atchison, American politician and diplomat (d. 1886)September 2 Fredrika Runeberg, Finnish writer (d. 1879)[14]September 7
Henry Sewell, 1st Premier of New Zealand (d. 1879)September 16 John Lenthall, American naval architect and shipbuilder (d. 1882)October 8 Harriet Taylor, English philosophical writer (d. 1858)[15]October 26 Barbu Catargiu, 1st Prime Minister of Romania (d. 1862)October 29 Aneo Kraljevi, Herzegovinian Catholic bishop (d. 1879)October 30
Christopher Wordsworth, Bishop of Lincoln (d. 1885)November 16 Eduard von Fransecky, Prussian general (d. 1890)December 8 Friedrich Traugott Ktzing, German pharmacist, botanist and phycologist (d. 1893)December 17 John Greenleaf Whittier, American Quaker poet and abolitionist (d. 1892)Pasquale PaoliFebruary 1 Sir Thomas Troubridge
1st Baronet, British admiral (b. c.1758)February 5 Pasquale Paoli, Corsican patriot, military leader (b. 1725)February 27 Louise du Pierry, French astronomer (b. 1732)April 10 Duchess Anna Amalia of Brunswick-Wolfenbttel, regent of Weimar and
American naval officer (b. 1778) Angelica Kauffman July 13 Henry Benedict Stuart, Italian-born cardinal, Jacobite claimant to the British throne (b. 1725) July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755) September 14 George Townshend, 1st Marquess Townshend, British field marshal (b. 1705) July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755) September 14 George Townshend, 1st Marquess Townshend, British field marshal (b. 1705) July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755) September 14 George Townshend, 1st Marquess Townshend, British field marshal (b. 1705) July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755) September 14 George Townshend, 1st Marquess Townshend, British field marshal (b. 1705) July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755) September 14 George Townshend, 1st Marquess Townshend,
1724)October 22 Jean-Franois Houbigant, French perfumer (b. 1730)November 2 Louis Auguste Le Tonnelier de Breteuil, Prime Minister of King Louis XVI of France (b. 1730)November 5 Angelica Kauffman, Swiss painter (b. 1741)November 8Darejan Dadiani, Georgian queen consort (b. 1738)Pierre-Alexandre-Laurent Forfait, French engineer
hydrographer, politician, and Minister of the Navy (17991801) (b. 1752)November 23 Jean-Franois Rewbell, French politician (b. 1747)November 26 Oliver Ellsworth, American founding father and 3rd Chief Justice of the United States Supreme Court (b. 1745)December 21
John Newton, English cleric, hymnist (b. 1725)December 29 Diogo de Carvalho e Sampayo, Portuguese diplomat, scientist (b. 1750)^ William S. Dudley, ed. The Naval War of 1812: A Documentary History (Naval Historical Center, 1985) p34^ Stephen Tomkins, The Clapham Sect: How Wilberforce's Circle Transformed Britain (Lion Books, 2012)
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the asteroid. For the Roman goddess, see Vesta (mythology). For other uses, see Vesta (disambiguation).4 VestaTrue color image of Vesta taken by Dawn. The massive Rheasilvia Crater dominates Vesta's south pole.DiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscoveryDiscovery
VestaPronunciation/vst/[1]Named afterVestaMinorplanet categoryMain belt (Vesta family)AdjectivesVestanVestian[a]Symbol (historically astronomical, now astrological)Orbital characteristics[6]Epoch 13September 2023(JD2453300.5)Aphelion2.57AU (384millionkm)Perihelion2.15AU (322millionkm)Semi-major axis2.36AU
(353millionkm)Eccentricity0.0894Orbital period (sidereal)3.63yr (1325.86d)Average orbital speed19.34km/sMean anomaly169.4Inclination7.1422 to ecliptic5.58 to invariable plane[7]Longitudeof ascendingnode103.71Timeof perihelion26 December 2021[8]Argumentof perihelion151.66SatellitesNoneEarthMOID1.14AU (171millionkm)Proper orbital
elements[9]Proper semi-major axis2.36151AUProper eccentricity0.098758Proper inclination6.39234Proper mean motion99.1888deg/yrProper orbital period3.62944 yr(1325.654 d)Precession of perihelion36.8729 (2343 years)arcsec/yrProper orbital period3.62944 yr(1325.654 d)Precession orbital 
446.4km[10]Mean diameter525.40.2km[10]Flattening0.2204Surface area(8.660.2)105km2[b][11]Volume7.4970107km3[10]Equatorial surfacegravity0.22m/s2 (0.022g0)Equatorial escape velocity0.36km/sSynodic rotation period0.2226d (5.342h)[6][13]Equatorial
rotationvelocitv93.1m/s[c]Axial tilt29Northpole right ascension20h 32m[d]Northpole declination48[d]Geometric albedo0.423[15]Temperaturemin: 75K (198C)max: 250K (23C)[16]Spectral typeV[6][17]Apparent magnitude5.1[18] to 8.48Absolute magnitude(H)3.20[6][15]Angular diameter0.70 to 0.22Vesta (minor-planet designation: 4 Vesta) is one of
the largest objects in the asteroid belt, with a mean diameter of 525 kilometres (326mi).[10] It was discovered by the German astronomer Heinrich Wilhelm Matthias Olbers on 29 March 1807[6] and is named after Vesta, the virgin goddess of home and hearth from Roman mythology.[19]Vesta is thought to be the second-largest asteroid, both by mass
and by volume, after the dwarf planet Ceres. [20][21][22] Measurements give it a nominal volume only slightly larger than that of Pallas (about 5% greater), but it is 25% to 30% more massive. It constitutes an estimated 9% of the mass of the asteroid belt. [23] Vesta is the only known remaining rocky protoplanet of the kind that formed the terrestrial
planets.[24] Numerous fragments of Vesta were ejected by collisions one and two billion years ago that left two enormous craters occupying much of Vesta's southern hemisphere.[25][26] Debris from these events has fallen to Earth as howarditeeucritediogenite (HED) meteorites, which have been a rich source of information about Vesta.[27][28]
[29]Vesta is the brightest asteroid visible from Earth. It is regularly as bright as magnitude 5.1,[18] at which times it is faintly visible to the naked eye. Its maximum distance from the Sun,[e] although its orbit lies entirely within that of Ceres,[30]NASA's Dawn spacecraft entered
orbit around Vesta on 16 July 2011 for a one-year exploration and left the orbit of Vesta on 5 September 2012[31] en route to its final destination, Ceres. Researchers continue to examine data collected by Dawn for additional insights into the formation and history of Vesta. [32][33]Vesta, Ceres, and the Moon with sizes shown to scaleHeinrich Olbers
discovered Pallas in 1802, the year after the discovery of Ceres. He proposed that the two objects were the remnants of a destroyed planet. He sent a letter with his proposal to the British astronomer William Herschel, suggesting that a search near the locations where the orbits of Ceres and Pallas intersected might reveal more fragments. These
orbital intersections were located in the constellation Virgoa coincidence, because Ceres, Pallas, and Vesta are not fragments of a larger body. Because the asteroid Juno had been discovered in 1804, this made Vesta the
fourth object to be identified in the region that is now known as the asteroid belt. The discovery was announced in a letter addressed to German astronomer Johann H. Schrter dated 31 March. [35] Because Olbers already had credit for discovering a planet (Pallas; at the time, the asteroids were considered to be planets), he gave the honor of naming
his new discovery to German mathematician Carl Friedrich Gauss, whose orbital calculations had enabled astronomers to confirm the existence of Ceres, the first asteroid, and who had computed the orbit of the new planet in the remarkably short time of 10 hours. [36][37] Gauss decided on the Roman virgin goddess of home and hearth, Vesta.
[38] Vesta was the fourth asteroid to be discovered, hence the number4 in its formal designation. The name Vesta, or national variants thereof, is in international use with two exceptions: Greece and China. In Greek, the name adopted was the Hellenic equivalent of Vesta, Hestia (4); in English, that name is used for 46 Hestia (Greeks use the name
 "Hestia" for both, with the minor-planet numbers used for disambiguation). In Chinese, Vesta is called the 'hearth-god(dess) star', Zoshnxng, naming the asteroid for Vesta's role, similar to the Chinese names of Uranus, Neptune, and Pluto.[f]Upon its discovery, Vesta was, like Ceres, Pallas, and Juno before it, classified as a planet and given a
planetary symbol. The symbol represented the altar of Vesta with its sacred fire and was designed by Gauss.[39][40] In Gauss's conception, now obsolete, this was drawn. His form is in the pipeline for Unicode 17.0 as U+1F777.[41][42][g]The asteroid symbols were gradually retired from astronomical use after 1852, but the symbols for the first four
asteroids were resurrected for astrology in the 1970s. The abbreviated modern astrological variant of the Vesta symbol is (U+26B6).[41][h]After the discovery of Vesta, no further objects were discovered for 38years, and during this time the Solar System was thought to have eleven planets.[47] However, in 1845, new asteroids started being
discovered at a rapid pace, and by 1851 there were fifteen, each with its own symbol, in addition to the eight major planets (Neptune had been discovered in 1846). It soon became clear that it would be impractical to continue inventing new planets (Neptune had been discovered in 1846).
problem was addressed by Benjamin Apthorp Gould, who suggested numbering asteroids in their order of discovery, and placing this number in a disk (circle) as the generic symbol of an asteroid. Thus, the fourth asteroid, Vesta, as the
number of minor planets increased. By 1858, the circle had been simplified to parentheses, (4) Vesta, which were easier to typeset. Other punctuation, such as 4) Vesta and 4, Vesta and 4, Vesta, was also briefly used, but had more or less completely died out by 1949.[48]SPHERE image is shown on the left, with a synthetic view derived from Dawn images shown
on the right for comparison. [49] Photometric observations of Vesta were made at the Harvard College Observatory in 18801882 and at the Observatory in 18801882 and at the Observations of Vesta were made at the Harvard College Observatory in 18801882 and at the Observation rate of Vesta were made at the Harvard College Observatory in 18801882 and at the Observatory
light curve included variations in both shape and albedo. [50] Early estimates of the diameter of Vesta ranged from 383 kilometres (238mi) in 1879, which is close to the modern value for the mean diameter, but the subsequent estimates ranged from a
low of 390km (242mi) up to a high of 602km (374mi) during the next century. The measured estimates were based on photometry. In 1989, speckle interferometry was used to measure a dimension that varied between 498 and 548km (309 and 341mi) during the rotational period.[51] In 1991, an occultation of the star SAO 93228 by Vesta was
observed from multiple locations in the eastern United States and Canada, Based on observations from 14 different sites, the best fit to the data was an elliptical profile with dimensions of about 550km 462km (342mi 287mi), [52] Dawn confirmed this measurement, [i] These measurements will help determine the thermal history, size of the core, role
of water in asteroid evolution and what meteorites found on Earth come from these bodies, with the ultimate goal of understanding the conditions and processes present at the solar system's earliest epoch and the role of water content and size in planetary evolution. [53] Vesta became the first asteroid to have its mass determined. Every 18 years, the
asteroid 197 Arete approaches within 0.04AU of Vesta. In 1966, based upon observations of Vesta to Calculate the mass of Vesta to be
(1.310.02)1010M.[55] Dawn determined it to be 1.30291010M.Vesta orbits the Sun between Mars and Jupiter, within the asteroid belt, interior to the Kirkwood gap at 2.50AU. Its orbit is moderately inclined (i = 7.1, compared to 7 for Mercury and 17 for Pluto) and moderately
eccentric (e = 0.09, about the same as for Mars).[6]True orbital resonances between asteroids are considered unlikely. Because of their small masses relative to their large separations, such relationships (for periods up to 2
million years or more) and about forty such objects have been identified. [57] Decameter-sized objects detected in the vicinity of Vesta by Dawn may be such quasi-satellites rather than proper satellites rather than proper satellites.
visible in the more detailed Dawn images. Claudia crater (indicated by the arrow at the bottom of the closeup image at right) defines the prime meridian in the Dawn/NASA coordinate system. Vesta's rotation is relatively fast for an asteroid (5.342h) and prograde, with the north pole pointing in the direction of right ascension 20h32min, declination
+48 (in the constellation Cygnus) with an uncertainty of about 10. This gives an axial tilt of 29.[58]Two longitudinal coordinate systems are used for Vesta, with prime meridian running through the center of Olbers Regio, a dark
feature 200km across. When Dawn arrived at Vesta, mission scientists found that the location of the pole assumed by the IAU was off by 10, so that the IAU coordinate system drifted across the surface of Vesta at 0.06 per year, and also that Olbers Regio was not discernible from up close, and so was not adequate to define the prime meridian with the
precision they needed. They corrected the pole, but also established a new prime meridian 4 from the center of Claudia, a sharply defined crater 700 metres across, which they say results in a more logical set of mapping quadrangles. [59] All NASA publications, including images and maps of Vesta, use the Claudian meridian, which is unacceptable to
the IAU. The IAU Working Group on Cartographic Coordinates and Rotational Elements recommended a coordinate system, correcting the pole but rotating the Dawn team, which had been positioned so they would
not bisect any major surface features. [59][61]Relative sizes of the four largest asteroids. Vesta is second from left. This graph was using the legacy Graph extension, which is no longer supported to the new Chart extension. The mass of 4 Vesta (blue) compared to other large asteroids: 1 Ceres, 2 Pallas, 10 Hygiea, 704
Interamnia, 15 Eunomia and the remainder of the Main Belt. The unit of mass is1018 kg. Other objects in the Solar system with well-defined masses within a factor of 2 of Vesta's mass are Varda, Gknhmdm, and Salacia (245, 136, and 4921018 kg, respectively). No moons are in this range: the closest, Tethys (Saturn III) and Enceladus (Saturn II), are
over twice and less than half of Vesta's mass. Vesta is the second most massive body in the asteroid belt, although it is only 28% as massive body that formed in the asteroid belt, as Ceres, the most massive body in the asteroid belt, although it is only 28% as massive body that formed in the asteroid belt, although it is only 28% as massive body. [62][23] Vesta is, however, the most massive body that formed in the asteroid belt, although it is only 28% as massive body.
those of the four terrestrial planets but is higher than those of most asteroids, as well as all of the moons in the Solar System except Io. Vesta's surface area is about the same as the land area of Pakistan, Venezuela, Tanzania, or Nigeria; slightly under 900,000km2 (350,000sqmi; 90millionha; 220million acres). It has an only partially differentiated
interior.[63] Vesta is only slightly larger (525.40.2km[10]) than 2 Pallas (5123km) in mean diameter,[64] but is about 25% more massive. Vesta's shape is close to a gravitationally relaxed oblate spheroid,[58] but the large concavity and protrusion at the southern pole (see 'Surface features' below) combined with a mass less than 51020kg precluded
Vesta from automatically being considered a dwarf planet under International Astronomical Union (IAU) Resolution XXVI 5.[65] A 2012 analysis of Vesta is currently not in hydrostatic equilibrium.[10][67]Temperatures on the surface have been estimated to
lie between about 20C (253K) with the Sun overhead, dropping to about 190C (83.1K) at the winter pole. Typical daytime and nighttime temperatures are 60C (213K) and 130C (143K), respectively. This estimate is for 6 May 1996, very close to perihelion, although details vary somewhat with the seasons.[16]Further information: List of geological
features on VestaBefore the arrival of the Dawn spacecraft, some Vestan surface features had already been resolved using the Hubble Space Telescope and ground-based telescopes (e.g., the Keck Observatory).[68] The arrival of Dawn in July 2011 revealed the complex surface of Vesta in detail.[69]Geologic map of Vesta (Mollweide projection).[70]
The most ancient and heavily cratered regions are brown; areas modified by the Veneneia and Rheasilvia impact basin interior (in the south) is dark blue, and neighboring areas of Rheasilvia
ejecta (including an area within Veneneia) are light purple-blue; [72][73] areas modified by more recent impacts or mass wasting are yellow/orange or green, respectively. Main articles: Rheasilvia and Veneneia (green and
blue) dominate the right. Parallel troughs are seen in both. Colors of the two hemispheres are not to scale,[j] and the equatorial region is not shown. South pole of Vesta, showing the extent of Rheasilvia crater. The most prominent of these surface features are two enormous impact basins, the 500-kilometre-wide (311mi) Rheasilvia, centered near the
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south pole; and the 400-kilometre-wide (249mi) Veneneia. The Rheasilvia impact basin is younger and overlies the Veneneia. [74] The Dawn science team named the younger, more prominent crater Rheasilvia, after the mother of Romulus and Remus and a mythical vestal virgin. [75] Its width is 95% of the mean diameter of Vesta. The crater is about 19km (12mi) deep. A central peak rises 23km (14mi) above the lowest measured part of the crater floor low point. It is estimated that the impact responsible excavated about 1% of the volume of Vesta, and it is likely that the Vesta family and V-type asteroids are the

products of this collision. If this is the case, then the fact that 10km (6mi) fragments have survived bombardment until the present indicates that the crater is at most only about 6% of the ejected volume with the rest presumably either in small fragments, ejected by approaching the 3:1Kirkwood gap, or perturbed away by the Yarkovsky effect or radiation pressure. Spectroscopic analyses of the Hubble images have shown that this crater has penetrated deep through several distinct layers of the crust, and possibly into the mantle, as indicated by spectral signatures of olivine.[58] Subsequent analysis of data from the Dawn mission provided much greater detail on Rheasilvia's structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition, confirming it as one of the largest impact structure and composition are structure and composition are structured as one of the largest impact structure and composition are structured as one of the largest impact structure and composition are structured as one of the largest impact struc Rheasilvia's younger age.[74] Rheasilvia's size makes Vesta's southern topography unique, creating a flattened southern hemisphere and contributing significantly to the asteroid's overall oblate shape.[69] Rheasilvia's ~22km (14mi) central peak stands as one of the tallest mountains identified in the Solar System.[74] Its base width of roughly 180km (110mi) and complex morphology distinguishes it from the simpler central peaks seen in smaller craters on smaller asteroids fail to predict such a feature; instead, impact dynamics involving transient crater collapse and rebound of the underlying material (potentially upper mantle) are needed to explain its formation.[77] Hydrocode simulations suggest the impact angle (around 30-45 degrees from vertical) better match the detailed morphology of the basin and its prominent peak.[77] Crater density measurements on Rheasilvia's relatively unmodified floor materials and surrounding ejecta deposits, calibrated using standard lunar chronology functions adapted for Vesta's location, place the impact event at approximately 1 billion years ago. [79][70] This age makes Rheasilvia a relatively young feature on a protoplanetary body formed early in Solar System history. The estimated excavation of  $\sim 1\%$  of Vesta's spectral signature matches that of the Vestoids and HEDs, this strongly indicates they are fragments ejected from Vesta most likely during the Rheasilvia impact. [27][79] The Dawn mission's VIR instrument helped to confirm the basin's deep excavation and compositional diversity. VIR mapping revealed spectral variations across the basin consistent with the mixing of different crustal layers expected in the HED meteorites. Signatures matching eucrites (shallow crustal basalts) and diogenites (deeper crustal orthopyroxenites) were identified, which usually correlate with specific morphological features like crater walls or slump blocks. [80][27] The confirmed signature of olivine-rich material, which were first hinted at by Hubble observations is strongest on the flanks of the central peak and in specific patches along the basin rim and walls, suggesting it is not uniformly distributed but rather exposed in distinct outcrops. [81][80] As the dominant mineral expected in Vesta's mantle beneath the HED-like crust, [10] the presence of olivine indicates the Rheasilvia impact penetrated Vesta's entire crust (~2040km (1225mi) thick in the region) and excavated material from the upper mantle.[81] Furthermore, the global stresses resulting from this massive impact are considered the likely trigger for the formation of the large trough systems, like Divalia Fossa, that encircle Vesta's equatorial regions.[82][69]The crater AeliaFeralia Planitia, an old, degraded impact basin or impact basin complex near Vesta's equator (green and blue). It is 270km (168mi) across and predates Rheasilvia (green at bottom) Several old, degraded craters approach Rheasilvia and Veneneia in size, although none are quite so large. They include Feralia Planitia, shown at right, which is 270km (168mi) across.[83] Morerecent, sharper craters range up to 158km (98mi) Varronilla and 196km (122mi) Postumia.[84]Dust fills up some craters, creating so-called dust ponds. They are a phenomenon where pockets of dust are seen in celestial bodies without a significant atmosphere. These are smooth deposits of dust accumulated in depressions on the surface of the body (like craters), contrasting from the Rocky terrain around them.[85] On the surface of Vesta, we have identified both type1 (formed from impact melt) and type2 (electrostatically made) dust ponds within 030N/S, that is, Equatorial region. 10craters have been identified with such formations.[86]The "snowman craters" are a group of three adjacent craters in Vesta's northern hemisphere. Their official names, from largest to smallest (west to east), are Marcia is the youngest and cross-cuts Calpurnia, and Minucia is the youngest and cross-cuts Calpurnia, and Minucia is the youngest and cross-cuts Calpurnia. Minucia is the youngest and cross-cuts Calpurnia, and Minucia is the youngest and cross-cuts Calpurnia. of Vesta is sculpted by a series of parallel troughs designated Divalia Fossae; its longest trough is 1020 kilometres (6.212.4mi) wide and 465 kilometres (289mi) long. Despite the fact that Vesta is a one-seventh the size of the Moon, Divalia Fossae dwarfs the Grand Canyon. A second series, inclined to the equator, is found further north. This northern trough system is named Saturnalia Fossae, with its largest trough being roughly 40km (25mi) wide and over 370km (25mi) wide and over 370km (25mi) long. These troughs are thought to be large-scale graben resulting from the impacts that created Rheasilvia and Veneneia craters, respectively. They are some of the longest chasms in the Solar System, nearly as long as Ithaca Chasma on Tethys. The troughs may be graben that formed after another asteroid collided with Vesta, a process that can happen only in a body that is differentiated, [82] which Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta, a process that can happen only in a body that is differentiated, [82] which Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. Alternatively, it is proposed that the troughs may be graben that formed after another asteroid collided with Vesta may not fully be. with parallel troughs to the north and southA computer-generated view of a portion of Divalia FossaeComposition of the surface composition of Vesta is consistent with the composition of the howardite, eucrite, and diogenite meteorites. [88][90] The Rheasilvia region is richest in diogenite meteorites. [88][90] The Rheasilvia region would also be consistent with excavation of mantle material. However, olivine has only been detected in localized regions of the northern hemisphere, not within Rheasilvia and Veneneia impact basins complicates this view. Both impact basins excavated Vestian material down to 60100km, far deeper than the expected or the violent impact events that created Rheasilvia and Veneneia may have mixed material enough to obscure olivine from observations. Alternatively, Dawn observations of olivine could instead be due to delivery by olivine-rich impactors, unrelated to Vesta's internal structure.[91] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been
observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain has been observed in four craters on Vesta: Marcia, are associated with areas of dark material.[93] Consequently, dark material is thought to be largely composed of carbonaceous chondrites are comparatively rich in mineralogically bound OH.[90]Cut-away schematic of Vestan core, mantle, and crustEucrite meteoriteA large collection of potential samples from Vesta is accessible to scientists, in the form of over 1200HED meteorites (Vestan achondrites), giving insight into Vesta's geologic history and structure. NASA Infrared Telescope Facility (NASA IRTF) studies of asteroid (237442) 1999 TA10 suggest that it originated from deeper within Vesta than the HED meteorites.[94]Vesta is thought to consist of a metallic ironnickel core, variously estimated to be 90km (56mi)[63] to 220km (140mi)[10] in diameter, an overlying rocky olivine mantle, with a surface crust of similar composition to HED meteorites. From the first appearance of calciumaluminium-rich inclusions (the first solid matter in the Solar System forming about 4.567billion years ago), a likely time line is as follows:[95][96][97][98][99]Timeline of the evolution of Vesta23million yearsAccretion complete melting due to radioactive decay of 26Al, leading to separation of the metal core67million yearsProgressive crystallization of a convecting molten mantle. Convection stopped when about 80% of the material had crystallized Extrusion of the remaining molten material to form the crust, either as basaltic lavas in progressive eruptions, or possibly forming a short-lived magma ocean. The deeper layers of the crust crystallized Extrusion of the remaining molten material to form the crust, either as basaltic lavas in progressive eruptions, or possibly forming a short-lived magma ocean. The deeper layers of the crust crystallized Extrusion of the remaining molten material to form the crust, either as basaltic lavas in progressive eruptions, or possibly forming a short-lived magma ocean. 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Plutonic rocks consisting of pyroxene, pigeonite and plagioclase, the source of cumulate eucrites. Plutonic rocks rich in orthopyroxene with large grain sizes, the source of diogenites. On the basis of the sizes of V-type asteroids (thought to be pieces of Vesta's crust ejected during large impacts), and the depth of Rheasilvia crater (see below), the crust is thought to be roughly 10 kilometres (6mi) thick.[102]Findings from the Dawn spacecraft have found evidence that the troughs section above), meaning that Vesta has more complex geology than other asteroids. The impacts that created the Rheasilvia and Veneneia craters occurred when Vesta was no longer warm and plastic enough to return to an equilibrium shape, distorting its once rounded shape and prohibiting it from being classified as a dwarf planet today.[citation needed]Vesta's surface is covered by regolith distinct from that found on the Moon or asteroids such as Itokawa. This is because space weathering acts differently. Vesta's surface shows no significant trace of nanophase iron because the impact speeds on Vesta are too low to make rock melting and vaporization an appreciable process. Instead, regolith evolution is dominated by brecciation and subsequent mixing of bright and dark components.[103] The dark component is probably due to the infall of carbonaceous material, whereas the bright component is the original Vesta basaltic soil.[104]Some small Solar System bodies are examples. The V-type asteroid 1929 Kollaa has been determined to have a composition akin to cumulate eucrite meteorites, indicating its origin deep within Vesta's crust. [28] Vesta is currently one of only eight identified Solar System bodies of which we have physical samples, coming from a number of meteorites suspected to be Vestan fragments. It is estimated that 1 out of 16 meteorites originated from Vesta. [105] The other identified Solar System samples are from Earth itself, meteorites from Mars, meteorites from the Moon, and 101955 Bennu. [29][k] Animation of Dawn's trajectory from 27 September 2007 to 5 October 2018 Dawn Earth Mars 4 Vesta 1 CeresFirst image of asteroids (Ceres and Vesta) taken from Mars. The image was made by the Curiosity rover on 20 April 2014. Animation of Dawn's trajectory around 4 Vesta from 15 July 2011 to 10 September 2012 Dawn 4 VestaIn 1981, a proposal for an asteroid mission was submitted to the European Space Agency (ESA). Named the Asteroidal Gravity Optical and Radar Analysis (AGORA), this spacecraft was to launch some time in 19901994 and perform two flybys of large asteroids. The preferred target for this mission was Vesta. AGORA would reach the asteroid belt either by a gravitational slingshot trajectory past Mars or by means of a small ion engine However, the proposal was refused by the ESA. A joint NASAESA asteroid mission was then drawn up for a Multiple Asteroid Orbiter with Solar Electric Propulsion (MAOSEP), with one of the mission profiles including an orbit of Vesta. NASA indicated they were not interested in an asteroid mission. Instead, the ESA set up a technological study of a spacecraft with an ion drive. Other missions to the asteroid belt were proposed in the 1980s by France, Germany, Italy and the United States, but none were approved.[106] Exploration of Vesta mission, developed in cooperation with European countries for realisation in 19911994 but canceled due to the dissolution of the Soviet Union. Artist's conception of Dawn orbiting VestaIn the early 1990s, NASA initiated the Discovery Program, which was intended to be a series of low-cost scientific missions. In 1996, the program's study team recommended a mission to explore the asteroid belt using a spacecraft with an ion engine as a high priority. Funding for this program remained problematic for several years, but by 2004 the Dawn vehicle had passed its critical design review[107] and construction proceeded. [citation needed] the launched on 27 September 2007 as the first space mission to Vesta. On 3 May 2011, Dawn acquired its first targeting image 1.2million kilometres (0.7510^6mi) from Vesta.[108] On 16 July 2011, NASA confirmed that it received telemetry from Dawn indicating that the spacecraft successfully entered Vesta's orbit.[109] It was scheduled to orbit Vesta for one year, until July 2012.[110] Dawn's arrival coincided with late summer in the southern hemisphere of Vesta, with the large crater at Vesta's south pole (Rheasilvia) in sunlight. Because a season on Vesta lasts eleven months, the northern hemisphere, including anticipated compression fractures opposite the crater, would become visible to Dawn's cameras before it left orbit. [111] Dawn left orbit around Vesta on 4 September 2012 11:26 p.m. PDT to travel to Ceres.[112]NASA/DLR released imagery and summary information from a survey orbit, two high-altitude orbits (6070m/pixel), including digital terrain models, videos and atlases.[113][114][115][116][117][118] Scientists also used Dawn to calculate Vesta's precise mass and gravity field. The subsequent determination of the J2 component yielded a core diameter estimate of about 220km (140mi) assuming a crustal density similar to that of the HED.[113]Dawn data can be accessed by the public at the UCLA website.[119]Albedo and spectral maps of 4 Vesta, as determined from Hubble Space Telescope images from November 1994Elevation map of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta (as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation
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[120] Vesta is shown fourth from the left along the bottom row. Vesta from 41,000km (9 July 2011)In orbit at 16,000km (17 July 2011) Vesta from 100,000km (17 July 2011) Vesta is shown fourth from the left along the bottom row. Vesta from 100,000km (9 July 2011) In orbit at 16,000km (17 July 2011) Vesta from 100,000km (17 July 2011) Vesta from 12011)In orbit from 10,500km(18 July 2011)The northern hemisphere from 5,200km(23 July 2011)In orbit from 5,200km(24 July 2011)In orbit from 3,700km(31 July 2011)In orbit from 3,700km(31 July 2011)In orbit from 5,200km(24 July 2011)In orbit from 3,700km(31 July 2011)In orbit from 5,200km(24 July in various states of degradation, with troughs at bottom(6 August 2011)Hill shaded central mound at the south pole of Vesta(2 February 2015)Detailed images retrieved during the high-altitude (6070m/pixel) and low-altitude (~20m/pixel) mapping orbits are available on the Dawn Mission website of JPL/NASA.[121]Annotated image from Earth's surface in June 2007 with (4) VestaIts size and unusually bright surface make Vesta the brightest since 1989.[122] At that time, opposition and perihelion were only a few weeks apart.[123] It was brighter still at its 22 June 2018 opposition, reaching a magnitude of +5.3.[124]Less favorable oppositions during late autumn 2008 in the Northern Hemisphere still had Vesta at a magnitude of +5.3.[124]Less favorable opposition, reaching a magnitude of from +6.5 to +7.3.[125] Even when in conjunction with the Sun, Vesta will have a magnitude of from +6.5; thus from a pollution-free sky it can be observed with binoculars even at elongations much smaller than near opposition. [125]In 2010, Vesta reached opposition in the constellation of Leo on the night of 1718 February, at about magnitude 6.1, [126] a brightness that makes it visible in binocular range but generally not for the naked eye. Under perfect dark sky conditions where all light pollution is absent it might be visible to an experienced observer without the use of a telescope or binoculars. Vesta came to opposition again on 9 December 2012.[128] According to Sky and Telescope magazine, this year Vesta came within about 6 degrees of 1 Ceres during the winter of 2012 and spring 2013.[129] Vesta orbits the Sun in 3.63 years and Ceres in 4.6 years, so every 17.4 years Vesta had a magnitude of 6.6, but it had decreased to 8.4 by 1 May 2013. [129]Conjunction of Ceres and Vesta near the star Gamma Virginis on 5 July 2014 in the Constellation of Virgo. Ceres and Vesta came within one degree of each other in the night sky in July 2014. [129]3103 Eger3551 Verenia (vestoids) List of tallest mountains in the Solar System^ Marc Rayman of the JPL Dawn team used "Vestian" (analogous to the Greek cognate Hestian) a few times in 2010 and early 2011 in his Dawn Journal, and the Planetary Society continued to use that form for a few more years.[2] The word had been used elsewhere, e.g. in Tsiolkovsky (1960) The call of the cosmos. However, otherwise the shorter form "Vestan" has been used by JPL.[3] Most modern print sources also use "Vestan" the related word "Vestalian" refers to people or things associated with Vesta, such as the vestal virgins, not to Vesta herself. Calculated using the known dimensions assuming an ellipsoid. Calculated using (1) the known rotation period (5.342h)[6] and (2) the equatorial radius Req (285km)[10] of the best-fit biaxial ellipsoid to Asteroid 4 Vesta. a b topocentric coordinates computed for the selected location: Greenwich, United Kingdom[14] On 10 February 2009, during Ceres perihelion, Ceres was closer to the Sun than Vesta, because Vesta has an aphelion distance greater than Ceres's perihelion distance. (10 February 2009: Vesta 2.56AU; Ceres 2.54AU) wist is the closest Chinese approximation of the Latin pronunciation westa. Some sources contemporaneous to Gauss invented more elaborate forms, such as and .[43][44] A simplification of the latter from c.1930, .[45] never caught on. This symbol can be seen in the top of the most elaborate of the earlier forms, . It dates from 1973, at the beginning of astrological interest in asteroids. [46] The data returned will include, for both asteroids, full surface imagery, full surface spectrometric mapping, elemental abundances, topographic profiles, gravity fields, and mapping of remnant magnetism, if any.[53]^ that is, blue in the north does not mean the same thing as blue in the south.^ Note that 6 Hebe may be the parent body for H chondrites, one of the most common meteorite types.^ "Vesta". Dictionary.com Unabridged (Online). n.d.^ "Search Results". Planetary Society. Archived from the original on 27 July 2020. Retrieved 31 August 2012.^ "Search Dawn Mission". JPL. 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