Click to verify

Have you played the puzzle game Tangram? I remember, as a child, being fascinated by how just seven simple wooden triangles and other shapes could offer endless entertainment. Unlike LEGO, the Tangram pieces do not snap together, and unlike the pieces of a jigsaw puzzle, they do not form a painted picture. Instead, Tangram invites you to fit all the pieces together to form countless varieties of shapes. You can make your own shapes or you can try to form shapes that others have created. For instance, here's one way to form a swan shape using Tangram pieces: This is one of several ways to make a swan shape using Tangram. Can you find another? Shutterstock But it's not the only way to make a swan. Can you find others? If you do not have the physical puzzle at hand, you can use a virtual version of Tangram. Tangram is accessible and yet challenging, and an excellent educational tool. It's still used in schools today to help illustrate mathematical concepts and develop mathematical thinking skills. It even features a paradox or two. Read more: 5 math skills your child needs to get ready for kindergarten A long history of rearrangement puzzles Tangram is one of many rearrangement puzzles that have appeared throughout the ages. The earliest known rearrangement puzzle, the Stomachion, was invented by Greek mathematician Archimedes 2,200 years ago and was popular for centuries among Greeks and Romans. It consists of 14 puzzle pieces that can fit together in the form of many different shapes. There are 536 different ways to fit the pieces together as a square. Then there's the Eternity Puzzle, released in 1999, which consists of 209 blue puzzle pieces that together form a big circle-like shape. It was very popular and sold 500,000 copies worldwide, perhaps due to the 1 million British pounds promised to whoever first solved it. Less than a year later, the mathematicians Alex Selby and Oliver Riordan solved the puzzle and claimed the prize. The creator of the puzzle, the controversial Christopher Monckton, said at the time he had to sell his house to raise the prize money. The origins of Tangram stretch back to the third century Chinese mathematician Liu Hui. Among many other accomplishments, Liu Hui used rearrangements of geometrical shapes to elegantly explain mathematical facts such as the Gougu Rule, also known as Pythagoras' Theorem. Shapes can be rearranged to explain the Gougu Rule, also known as Pythagoras' Theorem. Animation by William B. Faulk, CC BY-SA 4.0, via Wikimedia Commons, CC BY This rearrangement approach to geometry was later evident in the creation of 12th century Chinese banquet tables (rectangular tables designed to be arranged into patterns that might please or entertain dinner guests). A different version, known as a butterfly table, was popularised in the early 17th century and featured a broader variety of shapes. A surviving table set can be seen in the Lingering Garden (Liu Yuan) which is part of a UNESCO World Cultural Heritage site in Suzhou. The Tangram was popularised as a puzzle game around the year 1800. Shutterstock The Tangram craze According to The Tangram Book by Jerry Slocum and other authors, the Tangram was popularised as a puzzle game around the year 1800. They report the inventor, an unknown Chinese person using the pen name Yang-Cho-Chu-Shih ("Dimwitted recluse"), published Ch'i chi'iao t'u ("Pictures Using Seven Clever Pieces"), a book containing hundreds of Tangram puzzle shapes. Patterns from a Tangram puzzle and solution books, China c. 1815 (British Library 15257.d.5, 15257.d.14) British Library This sparked a craze for the game in China. Other Tangram puzzle books were soon published, with some eventually making their way to Japan, the United States and England, where they were translated and extended. During 1817-18, the Tangram craze spread like wildfire to France, Denmark and other European countries. Worldwide interest in Tangram has endured ever since. An educational tool harbouring a paradox or two The lasting popularity of Tangram might partly be due to it allowing so many shapes with so few pieces. Researchers have found that Tangram can help students' visual and geometric thinking and even their arithmetic skills. Tangram may help in the assessment of children's learning of written languages and of their emotional regulation skills. For most people, though, Tangram is just a fun and creative challenge. There are also some Tangram "paradox" puzzles discussed in The Tangram Book and elsewhere online, where Tangram pieces are arranged to make two seeming identical shapes (but where one appears to have a leftover piece). The two monks Tangram paradox. AlphaZeta, CC0, via Wikimedia Commons, CC BY Can you explain the "paradox" – why one has a triangular "foot" and the other does not, even though both images use all seven pieces? As a bonus challenge, perhaps you can you solve the similar infinite chocolate bar "paradox" popularised on Instagram and TikTok. Good luck and happy puzzling! Read more: Learn how to make a sonobe unit in origami – and unlock a world of mathematical wonder The Tangram Puzzle, the most famous of all the Chinese puzzle has a truly spectacular legend behind it. Reputed to have been invented during the Song Dynasty by a master glassmaker who had been commissioned to construct a pane of glass for the royal palace – as the first window for the King. This pane was significant not only as it was the first window of the royal palace but also as it was a perfect square, sumptuously worked by the skilled hands of the sage. Transporting the pane was a great responsibility, as such it was wrapped in protective layers of the finest silks, leather and canvas in all the land– supposedly assuring the panes successful arrival at the palace unbroken during its arduous journey. The artisan carefully travelled the barren planes of ancient China in pursuit of the glorious royal palace. After many days of travel the artisan finally came upon the edge of a mountain, with the castle within the hazy distance. With the royal palace now within site the artisans focus waned for an instant. While peering off into the distance in awe of the castle, he didn't notice the tiniest pebble, upon which he stumbled and fell. Before the artisan realized he was tumbling head first down the mountain, wrapped pane in tow. When he stopped at the base, he urgently unwrapped the pane finding to his astonishment that the pane had magically broken into 7 clean breaks. There was one square, one parallelogram and five triangles. The sage tried to fit the pieces back together in the shape of the original square. At first he made a rectangle. Next he came up with a parallelogram. Finally, after many attempts, he was able to slide the pieces into the perfect square. He then realized the infinite amount of combinations and interesting shapes that could be made by arranging the pieces. He dragged the remaining segments across the desert until he finally arrived at the palace, exhausted. Upon arriving at the palace presented the pane, but not as the perfect square piece that had been commissioned, but instead he used the pieces of broken glass, and its infinite possibilities, to illustrate his journey. The king was astounded at the creation and spent the coming days arranging the glass himself back to a perfect square, without ever placing the pane as the first window in his castle. Soon the puzzle was reincarnated in wood, shell and metal and spread across the land. Its popularity as a puzzle grew until it was known as the most popular puzzle in the land. This, sadly is a piece of pure fiction, apart from the popularity of Tangram which are indeed exceptionally popular to this day. The puzzle was originally popularized in Europe thanks to the "Eighth Book of Tan", which was released in 1818, a year after the first tangram had reached the shores of the US. Arriving on canton and clipper ships. The fad exploded and was soon popular across Europe, much like the Rubik' cube in more recent times – thanks mainly to the release of the "The Fashionable Chinese Puzzle" book and its solutions. One of the key reasons for the exploding popularity of Tangrams was that the Catholic Church, did not allow for recreational activities on the Sabbath, but did allow for puzzles to be played. The tangram puzzles consists of seven flat pieces and a collection of simple outline diagrams and silhouettes and have been popularized not just as puzzles, but also as tables, dishes and seating arrangements in design. Last Updated on January 25, 2024 by Gamesver Team and JC Franco Have you stumbled through a Tangram puzzle before? These mind-bending puzzles are intriguing. It seems simple on the surface – it's just seven blocks that you need to arrange in a respective space. But make no mistake, as they can be deceptively complex. They can leave you rotating pieces to the point where you give up and look for the solution. The legend surrounding the Tangram puzzle is fascinating. Of course, variations of the story exist, along with a vague history of who invented it and how it came to be. Here's what we'll cover in this article. The Legend of the Tangram. Samuel Loyd made up a hoax about the Tangram's history. Origin of the Tangram puzzle. In China. In America. In England. In Denmark. In Germany.The origin of the word 'Tangram.'The future of Tangrams. Knowing a bit more about the history of a game can be enjoyable as you learn new information. Anyways, are you familiar with the legend of the Tangram puzzle? It goes something like this: Long ago, a sage (a wise person) was on his way to deliver a square glass window. He was taking it to the king who had heard of this perfect square pane. The king desired it for his palace and sent the sage out on a long journey to bring it to him. Bringing back the pane was no easy feat. The sage had to cross a mighty mountain range, followed by deserts, rivers, forests, and fields, to get this most exquisite sheet of glass. The pane was wrapped in a silk cloth and canvas and put in the sage's backpack to take to the king. Very carefully, the sage made his way back to the king in the Far East. He once again set out on his arduous journey, crossing the same deserts, plains, and rivers, making his way to the mighty mountain range. After climbing to the top, he caught a glimpse of the palace and thought, "here at last." As he lingered on the mountain, he stumbled and fell. He cringed inside as he heard the glass shattering to what sounded like a thousand pieces. What was he going to tell the king? The sage opened his backpack, and to his amazement, the glass was not shattered but perfectly divided into seven geometric pieces. Trying to appease the king with an excuse, the sage thought he'd tell the king about his travels, using these seven pieces of glass to tell his story. When the sage arrived, he admitted to the king that he had broken the glass, and he began arranging the seven geometric pieces to depict his journey. He showed the king a camel he rode in the desert, the boat that used to cross the river, and the mountain range where he fell. The sage's story enthralled the king, and his use of the glass pane used to tell it. It delighted the king to carve seven geometric pieces of wood, like that of the sage, and send them throughout the realm. That's how Tangrams Puzzles came about. People recognize Samuel Loyd as one of America's famous puzzle writers. However, people also know him for lies and reprobation. In 1908 he published his work, The Eighth Book of Tan. His book featured 700 unique Tangram designs, but the information contained in this book did not include accurate facts. His story is a legend that many people believed. He claimed the puzzle was 4000 years old (when, in fact, it was probably only 200 years old). In his book, Loyd stated that Tan, a Chinese man, invented the Tangram. He credited Tan as a god and claimed Tan to be a part of Chinese literature and history. In 1910, Sir James Murray addressed a prominent puzzlist – Henry Dudeney. On behalf of several Chinese scholars, he stated that the information in Loyd's book was baseless and false. There is no man named Tan, who claimed to be the inventor of the Tangram, who is associated with Chinese history or tradition. While the game may have its roots in China, none of the facts or historical accounts of the Tangram provided in Loyd's book should be regarded as reputable. It was clear that his book was a hoax. This hoax did not stop the public from purchasing The Eight Book of Tan. On the contrary, it was Loyd's book that made Tangrams famous at the time. And while Sir James Murray was successful in exposing Loyd's false Tangram history, Loyd's hoax is occasionally cited in publications and websites. A legend stemming from Samuel Loyd's hoax goes like this: Long ago, in China, lived a man called Tan. Tan had a precious tile which was his greatest possession. He wanted to present his tile to the emperor. On his way, he tripped, fell, and broke the tile. The tile broke into seven pieces, each in a geometric design – two large triangles, one medium triangle, two small triangles, a square, and a parallelogram. The perfectly formed geometric tiles amazed Tan, and he immediately tried to rearrange the pieces back into their original form. He tried and rearranged the elements, and then he noticed all the other shapes and patterns looked like animals and objects. Tan's friends joined him, trying to recreate the designs he had invented. It took Tan a whole lifetime to figure out how to put the tile back into its original shape. Tan's puzzles, which were now known as Tangrams, were recreated from stone, wood, and other earthen objects. They were passed down through generations and across many countries. The truth is that no one really knows who invented Tangram puzzles. Evidence indicates that these puzzles originated in imperial China in the 18th century. The Chinese call the game "Chin-Chiao Pan," which means "intriguing seven-piece puzzle." A book, Ch'i chi'iao t'u, seems to introduce the Tangram. The book's author, New Figures of the Tangram, Shan-Chiao, alludes to the loss of Ch'i chi'iao t'u in 1815. However, other evidence indicates that tangrams were in use 20 years before this. For example, there are banquet tables arranged as Tangrams in the Song Dynasty. There were many books dedicated to setting these banquet tables at the time. It was in 1815 when Captain M. Donaldson brought the puzzles to America. Someone had given him two of Sang-Hsia-koi books, one Tangram puzzle, and one solution book on the subject of Tangrams. He brought these books with him on board his ship, named Trader. The books Donaldson brought led to the first Tangram book published in America. When the puzzle reached England, it quickly spread to other European countries, making Tangrams popular. China began exporting Tangrams extensively during this time. The materials used to make these puzzles ranged from glass to wood to tortoise shells! Many people believe the widespread Tangram puzzles in the European sector had to do with the Catholic Church not placing restrictions on Tangrams. Since the Catholic Church forbade many forms of recreation on the Sabbath, they influenced peoples' choices. The Church, however, set no restrictions regarding Tangrams which led to the popularity of this game. The exquisite Tangram puzzles soon made their way to Denmark. Interest in these puzzles skyrocketed when a student wrote a non-fictional book about the history and popularity of the Chinese game. Another book, 'The New Chinese Game' containing 339 Tangrams from the Eighth Book of Tan, also helped popularize Tangrams in Denmark. In Germany, the craze started for the Tangram puzzle a little later. In 1981, an industrialist, Friedrich Adolf Richter, introduced the Tangram puzzles to the German population. Richter marketed it as "The Anchor Puzzle." People made these sets of Tangrams from stone and earthenware. We can find the first known use of the word "Tangram" in English in the book Geometrical Puzzle for the Young. The book was published in 1848 by Mathematician Tomas Hill, who became a Harvard University president. Hill advocated the use of Tangrams in education, making them world-famous through numerous articles. 'Tangram' received recognition in the English language when it went down in Noah Webster's dictionary in 1864. Tangrams are one of the oldest surviving puzzles today, serving a purpose in art, entertainment, and education. Tangram puzzles allow children to build their knowledge of geometric terms. Since these puzzles are great at helping kids develop an appreciation of arithmetic, spatial relation, and problem-solving, many teachers favor the use of Tangram puzzles over other games. In addition, both children and adults often enjoy creating their shapes by organizing the pieces of a Tangram. As a result, these dissection puzzles are widely accepted by many around the world. Now available on websites and app stores, Tangrams continue to survive until today. From the inception of Tangrams to its continuity today, they are still a fan-favorite dissection puzzle. Though people have exaggerated the puzzle's history and whereabouts, it has not prohibited the popularity of this game. We hope you found the legends of the Tangram puzzle enjoyable. Pick up some Tangrams and get cracking. Happy playing! Tangram is accessible yet challenging, and an excellent educational tool. It's still used in schools today to help illustrate mathematical concepts and develop mathematical thinking skills. Tangram puzzles originated in Imperial China during the Tang Dynasty, they are thought to have travelled to Europe in the 19th century on trading ships. Tangram puzzles were popular during World War 1 and have become the most popular dissection puzzle in the world. Besides, tangram patterns have also been described as early psychological tests. Tangram patterns are called in China "Chin-Chiao Pan" meaning intriguing seven piece puzzle. A book published in China in 1815 by Shan-Chiao contains 374 puzzle patterns. Early Chinese mathematicians manipulated geometric shapes in their problem solving. A technique that is still applied in classrooms today, inter alia, through the use of tangrams. Published on May 30, 2023 The Tangram originated somewhere in China. It is not know when the first Tangram made its appearance, but it was certainly long ago, before the first known book was ever printed in China. Some believe the Tanka people discovered the trinket and used it to entertain western sailors who came to trade with them. Others hold onto the legend that a Chinese tile maker accidentally dropped a ceramic tile, and it broke into pieces exactly in the form of the Tangram. The tile maker knew it was once a perfect square tile, but could not figure out how to put it back together. In current times, the Tangram is not only used to entertain and dumbfound, but it is also used in school competitions to see what kinds of shapes can be formed with the seven simple pieces. Below are just a few examples of the shapes you can form. See if you can make them, or have fun and create some of your own. Person Running Rabbit Horse CandleSwan Dog Return to Puzzle Click here Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material 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 licensor 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. Have you played the puzzle game Tangram? I remember, as a child, being fascinated by how just seven simple wooden triangles and other shapes could offer endless entertainment. Unlike LEGO, the Tangram pieces do not snap together, and unlike the pieces of a jigsaw puzzle, they do not form a painted picture. Instead, Tangram invites you to fit all the pieces together to form countless varieties of shapes. You can make your own shapes or you can try to form shapes that others have created. For instance, here's one way to form a swan shape using Tangram pieces: This is one of several ways to make a swan shape using Tangram. Can you find another? Shutterstock But it's not the only way to make a swan. Can you find others? If you do not have the physical puzzle at hand, you can use a virtual version of Tangram. Tangram is accessible and yet challenging, and an excellent educational tool. It's still used in schools today to help illustrate mathematical concepts and develop mathematical thinking skills. It even features a paradox or two. Read more: 5 math skills your child needs to get ready for kindergarten A long history of rearrangement puzzles Tangram is one of many rearrangement puzzles that have appeared throughout the ages. The earliest known rearrangement puzzle, the Stomachion, was invented by Greek mathematician Archimedes 2,200 years ago and was popular for centuries among Greeks and Romans. It consists of 14 puzzle pieces that can fit together in the form of many different shapes. There are 536 different ways to fit the pieces together as a square. Then there's the Eternity Puzzle, released in 1999, which consists of 209 blue puzzle pieces that together form a big circle-like shape. It was very popular and sold 500,000 copies worldwide, perhaps due to the 1 million British pounds promised to whoever first solved it. Less than a year later, the mathematicians Alex Selby and Oliver Riordan solved the puzzle and claimed the prize. The creator of the puzzle, the controversial Christopher Monckton, said at the time he had to sell his house to raise the prize money. The origins of Tangram stretch back to the third century Chinese mathematician Liu Hui. Among many other accomplishments, Liu Hui used rearrangements of geometrical shapes to elegantly explain mathematical facts such as the Gougu Rule, also known as Pythagoras' Theorem. Shapes can be rearranged to explain the Gougu Rule, also known as Pythagoras' Theorem. Animation by William B. Faulk, CC BY-SA 4.0, via Wikimedia Commons, CC BY This rearrangement approach to geometry was later evident in the creation of 12th century Chinese banquet tables (rectangular tables designed to be arranged into patterns that might please or entertain dinner guests). A different version, known as a butterfly table, was popularised in the early 17th century and featured a broader variety of shapes. A surviving table set can be seen in the Lingering Garden (Liu Yuan) which is part of a UNESCO World Cultural Heritage site in Suzhou. The Tangram was popularised as a puzzle game around the year 1800. Shutterstock The Tangram craze According to The Tangram Book by Jerry Slocum and other authors, the Tangram was popularised as a puzzle game around the year 1800. They report the inventor, an unknown Chinese person using the pen name Yang-Cho-Chu-Shih ("Dimwitted recluse"), published Ch'i chi'iao t'u ("Pictures Using Seven Clever Pieces"), a book containing hundreds of Tangram puzzle shapes. Patterns from a Tangram puzzle and solution books, China c. 1815 (British Library 15257.d.5, 15257.d.14) British Library This sparked a craze for the game in China. Other Tangram puzzle books were soon published, with some eventually making their way to Japan, the United States and England, where they were translated and extended. During 1817-18, the Tangram craze spread like wildfire to France, Denmark and other European countries. Worldwide interest in Tangram has endured ever since. An educational tool harbouring a paradox or two The lasting popularity of Tangram might partly be due to it allowing so many shapes with so few pieces. Researchers have found that Tangram can help students' visual and geometric thinking and even their arithmetic skills. Tangram may help in the assessment of children's learning of written languages and of their emotional regulation skills. For most people, though, Tangram is just a fun and creative challenge. There are also some Tangram "paradox" puzzles discussed in The Tangram Book and elsewhere online, where Tangram pieces are arranged to make two seeming identical shapes (but where one appears to have a leftover piece). The two monks Tangram paradox. AlphaZeta, CC0, via Wikimedia Commons, CC BY Can you explain the "paradox" – why one has a triangular "foot" and the other does not, even though both images use all seven pieces? As a bonus challenge, perhaps you can you solve the similar infinite chocolate bar "paradox" popularised on Instagram and TikTok. Good luck and happy puzzling! Read more: Learn how to make a sonobe unit in origami – and unlock a world of mathematical wonder The Tangram, a dissection puzzle originating from China, challenges not only the mind but also our understanding of geometric figures and spatial relationships. This intriguing puzzle consists of seven flat pieces called tans, which are assembled to form a square. From this square, a multitude of shapes can be created, sparking both creativity and critical thinking. However, tracing its exact origins remains difficult; it is often shrouded in mystery.Dating back to the Song Dynasty (960-1279 AD), historical records suggest that the Tangram might have evolved from a 14th-century Chinese game known as "qi qiao ban" — that is, a form of geometry teaching aid. Interesting theories abound regarding its migration to the West, particularly during the 19th century when it caught the attention of European intellectuals and artists. From here, it transitioned into the Western world, where it has since influenced countless educational methods and recreational activities.The unique composition of the Tangram is what renders it both complex and intellectually stimulating. It consists of two large triangles, one medium triangle, two small triangles, one square, and one parallelogram. When combined, these pieces must perfectly fit together to recreate the original square. Their ability to interlock and form myriad figures — such as animals, humans, and objects — is a remarkable demonstration of geometric principles in practice. The fluidity with which these elements transitions captures the essence of creativity and geometric reasoning.In terms of cognitive development, the Tangram provides significant benefits. Studies indicate that engaging with such puzzles can enhance spatial awareness, problem-solving skills, and visual-spatial reasoning. This is particularly valuable in fields such as mathematics, architecture, and engineering, where understanding and manipulating shapes is fundamental. Educational settings have started adopting the Tangram to make learning enjoyable while honing essential skills.Despite its widespread popularity, the difficulties in tracing the Tangram's precise lineage should not undermine its value. The evolution of the game exemplifies how cultural exchanges enrich human creativity. As the puzzle crossed different cultures, it adapted, evolving in forms and purposes. This adaptability has positioned the Tangram as a timeless tool for education and entertainment.In conclusion, the Tangram's origins may remain elusive but the puzzle itself fosters critical thinking and creativity. Not only does it serve as a gateway to understanding geometry, but it also encourages players of all ages to explore the intersections of art, mathematics, and culture. As we continue to enjoy its many configurations, the Tangram remains a testament to the ingenuity of human creativity, transcending geographical and temporal boundaries. Its legacy endures as both a charming puzzle and a valuable educational resource, bridging the gap between history and the present. Have you played the puzzle game Tangram? I remember, as a child, being fascinated by how just seven simple wooden triangles and other shapes could offer endless entertainment. Unlike LEGO, the Tangram pieces do not snap together, and unlike the pieces of a jigsaw puzzle, they do not form a painted picture. Instead, Tangram invites you to fit all the pieces together to form countless varieties of shapes. You can make your own shapes or you can try to form shapes that others have created. For instance, here's one way to form a swan shape using Tangram pieces: This is one of several ways to make a swan shape using Tangram. Can you find another? Shutterstock But it's not the only way to make a swan. Can you find others? If you do not have the physical puzzle at hand, you can use a virtual version of Tangram. Tangram is accessible and yet challenging, and an excellent educational tool. It's still used in schools today to help illustrate mathematical concepts and develop mathematical thinking skills. It even features a paradox or two. Read more: 5 math skills your child needs to get ready for kindergarten A long history of rearrangement puzzles Tangram is one of many rearrangement puzzles that have appeared throughout the ages. The earliest known rearrangement puzzle, the Stomachion, was invented by Greek mathematician Archimedes 2,200 years ago and was popular for centuries among Greeks and Romans. It consists of 14 puzzle pieces that can fit together in the form of many different shapes. There are 536 different ways to fit the pieces together as a square. Then there's the Eternity Puzzle, released in 1999, which consists of 209 blue puzzle pieces that together form a big circle-like shape. It was very popular and sold 500,000 copies worldwide, perhaps due to the 1 million British pounds promised to whoever first solved it. Less than a year later, the mathematicians Alex Selby and Oliver Riordan solved the puzzle and claimed the prize. The creator of the puzzle, the controversial Christopher Monckton, said at the time he had to sell his house to raise the prize money. The origins of Tangram stretch back to the third century Chinese mathematician Liu Hui. Among many other accomplishments, Liu Hui used rearrangements of geometrical shapes to elegantly explain mathematical facts such as the Gougu Rule, also known as Pythagoras' Theorem. Shapes can be rearranged to explain the Gougu Rule, also known as Pythagoras' Theorem. Animation by William B. Faulk, CC BY-SA 4.0, via Wikimedia Commons, CC BY This rearrangement approach to geometry was later evident in the creation of 12th century Chinese banquet tables (rectangular tables designed to be arranged into patterns that might please or entertain dinner guests). A different version, known as a butterfly table, was popularised in the early 17th century and featured a broader variety of shapes. A surviving table set can be seen in the Lingering Garden (Liu Yuan) which is part of a UNESCO World Cultural Heritage site in Suzhou. The Tangram was popularised as a puzzle game around the year 1800. Shutterstock The Tangram craze According to The Tangram Book by Jerry Slocum and other authors, the Tangram was popularised as a puzzle game around the year 1800. They report the inventor, an unknown Chinese person using the pen name Yang-Cho-Chu-Shih ("Dimwitted recluse"), published Ch'i chi'iao t'u ("Pictures Using Seven Clever Pieces"), a book containing hundreds of Tangram puzzle shapes. Patterns from a Tangram puzzle and solution books, China c. 1815 (British Library 15257.d.5, 15257.d.14) British Library This sparked a craze for the game in China. Other Tangram puzzle books were soon published, with some eventually making their way to Japan, the United States and England, where they were translated and extended. During 1817-18, the Tangram craze spread like wildfire to France, Denmark and other European countries. Worldwide interest in Tangram has endured ever since. An educational tool harbouring a paradox or two The lasting popularity of Tangram might partly be due to it allowing so many shapes with so few pieces. Researchers have found that Tangram can help students' visual and geometric thinking and even their arithmetic skills. Tangram may help in the assessment of children's learning of written languages and of their emotional regulation skills. For most people, though, Tangram is just a fun and creative challenge. There are also some Tangram "paradox" puzzles discussed in The Tangram Book and elsewhere online, where Tangram pieces are arranged to make two seeming identical shapes (but where one appears to have a leftover piece). The two monks Tangram paradox. AlphaZeta, CC0, via Wikimedia Commons, CC BY Can you explain the "paradox" – why one has a triangular "foot" and the other does not, even though both images use all seven pieces? As a bonus challenge, perhaps you can you solve the similar infinite chocolate bar "paradox" popularised on Instagram and TikTok. Good luck and happy puzzling! Read more: Learn how to make a sonobe unit in origami – and unlock a world of mathematical wonder Ask the publishers to restore access to 500,000+ books.