

I'm not a bot



See also: Appendix:Variations of "set" enPR: sēt, IPA(key): /sɛt/ Homophone: sett Rhymes: -ɛt From Middle English setten, from Old English settan, from Proto-West Germanic *sattjan, from Proto-Germanic *satjana, from Proto-Indo-European *sodʰyeti, causative of *sed- ("to sit"). set (third-person singular simple present sets, present participle setting, simple past set, past participle set or (dialectal) setten) (transitive) To put (something) down, to rest. Synonyms: put, lay, set down Antonym: pick up (transitive) To attach or affix (something) to something else, or in or upon a certain place. I have set my heart on running the marathon. (transitive) To put in a specified condition or state; to cause to be. 1827, Samuel Taylor Coleridge, Hamlet:Every incident sets him thinking. (transitive) To start (a fire). Synonym: light Antonyms: extinguish, put out, quench (transitive, dated) To cause to stop or stick; to obstruct; to fasten to a spot. to set a coach in the mud (transitive) To determine or settle. (transitive) To adjust. I set the alarm at 6 a.m. (i.e. I programmed it at that hour to go off at a later time) I set the alarm for 6 a.m. (i.e. I programmed it earlier to go off at that hour.) (transitive) To punch (a nail) into wood so that its head is below the surface. (transitive) To arrange with dishes and cutlery, to set the table. Please set the table for our guests. (transitive) To introduce or describe. (transitive) To introduce or describe. I'll tell you what happened, but first let me set the scene. (transitive) To locate (a play, etc.): to assign a backdrop to, geographically or temporally. He says he will set his next film in France. Her debut novel is set during the U.S. Civil War. (transitive) To compile, to make (a puzzle or change). This crossword was set by Aracaria. (transitive) To prepare (a stage or film set). (transitive) To fit (someone) up in a situation. (transitive) To arrange (type). Synonym: typeset It was a complex page, but he set it quickly. (transitive) To devote and assign (work) to. The teacher set her students the task of drawing a foot. (transitive, volleyball) To direct (the ball) to a teammate for an attack. (intransitive) To solidify. The glue sets in five minutes. (transitive) To render stiff or solid; especially, to convert into curd; to curdle. (intransitive) Of a heavenly body, to disappear below the horizon of a planet, etc, as the latter rotates. The moon sets at eight o'clock tonight. (transitive, bridge) To defeat a contract. (obsolete, now followed by "out", as in set out) To begin to move; to go forth. 1599 (date written), William Shakespeare, "The Life of Henry the Fifth", in Mr. William Shakespeares Comedies, Histories, & Tragedies [...] (First Folio), London: [...]. Isaac Iaggard, and Ed[ward] Blount, published 1623. –OCLC, (please specify the act number in uppercase Roman numerals, and the scene number in lowercase Roman numerals):The king is set from London, and the scene is now transported, gentles, to Southampton (transitive, botany) To produce after pollination. 2012, Daniel Chamovitz, What a Plant Knows, page 155:Many fruit trees will only flower and set fruit following a cold winter. (intransitive, of fruit) To be fixed for growth; to strike root; to begin to germinate or form. 1906, Canada. Dept. of Agriculture. Fruit Ranch, Fruit crop report:In the Annapolis Valley, in spite of an irregular bloom, the fruit has set well and has, as yet, been little affected by scab. (intransitive, Southern US, Midwestern US, dialects) To sit (be in a seated position). He sets in that chair all day. 1913, Joseph C[rosby] Lincoln, chapter VII, in Mr. Pratt's Patients, New York, N.Y.: London: [Daniel] Appleton and Company. –OCLC:Old Applegate, in the stern, just set and looked at me, and Lord James, amidstwh, waved both arms and kept hollering for help. I took a couple of everlasting big strokes and managed to grab hold of the skiff's rail, close to the stern. 1987, Toni Morrison, Beloved, page 227:And if Mrs. Garner didn't need me right there in the kitchen, I could get a chair and you and me could set out there while I did the vegetables. (intransitive, Southern US, Midwestern US, dialects) To rest or lie somewhere, on something, etc., to occupy a certain place. 1975, "Convoy", in C.W. McCall, Chip Davis (lyrics), Black Bear Road, performed by C. W. McCall:Well, we rolled up Interstate 44Like a rocket-sled on rails.We tore up all of our swindle sheetsAnd left 'em settin' on the scales. To hunt game with the aid of a setter. (hunting, ambitransitive) Of a dog, to indicate the position of game. To apply oneself, to undertake earnestly. 1654, [Henry] Hammond, Of Fundamentals in a Notion Referring to Practise, London: [...]. [James] Flesher for Richard Royston, [...]. –OCLC:If he set industriously and sincerely to perform the commands of Christ, he can have no ground of doubting but it shall prove successful to him. (ambitransitive) To fit music to words. c. 1590-1591 (date written), William Shakespeare, "The Two Gentlemen of Verona", in Mr. William Shakespeares Comedies, Histories, & Tragedies [...] (First Folio), London: [...]. Isaac Iaggard, and Ed[ward] Blount, published 1623. –OCLC, [Act I, scene iii]:That I might sing it (Madam) to a tune:Giue me a Note, your Ladiship can set (ambitransitive) To place plants or shoots in the ground; to plant. to set pear trees in an orchard 1774, John Robinson, Thomas Rispin, A Journey Through Nova-Scotia Containing a Particular Account of the Country and its Inhabitants, York: C. Etherington, page 19:Mr. Forster, from Newcastle, made a purchase here last year. We saw him with eight men setting potatoes within a week of mid-summer. To become fixed or rigid; to be fastened. To become fixed or rigid; to be fastened. To have a certain direction of motion; to flow; to move on; to tend. The current sets to the north; the tide sets to the windward. (intransitive, country dancing) To acknowledge a dancing partner by facing him or her and moving first to one side and then to the other, while she or he does the opposite. Set to partners! was the next instruction from the caller. To place or fix in a setting. to set a precious stone in a border of metal 1681, John Dryden, The Spanish Fryar: Or, the Double Discovery. [...]. London: [...]. Richard Tonson and Jacob Tonson, [...]. –OCLC, Act IV, page 58:And him too Jewel to be set / In vulgar metal for a vulgar. To put in order in a particular manner; to prepare. to set (that is, to hone) a razor To extend and bring into position; to spread. to set the sails of a ship To give a pitch to, as a tune; to start by fixing the keynote. 1742, Henry Fielding, "Here Joseph Andrews Writes a Letter to His Sister Pamela", in The History of the Adventures of Joseph Andrews, and of His Friend Mr. Abraham Adams. [...], volume 1, London: [...]. [Andrew] Millar, [...]. –OCLC, book I, page 251: [...] I should be very willing to be his Clerk; for which you knovv I am qualified, being able to read, and to fet a Pfalm. To reduce from a dislocated or fractured state. (intransitive, now dialectal) To sit or lie (easily etc.) on the stomach; to be digested in a certain manner. 1917 February 12, "If You Knew What Foods?" (advertisement), in The Independent, volume 59, number 3558, New York: Independent Corporation, page 280:If you also knew how to combine foods—that is, what foods eaten together "set well," you need never have indigestion, constipation or any of the headachy, stomachachy ills they lead to. (masonry) To lower into place and fix solidly, as the blocks of cut stone in a structure. (obsolete) To wager in gambling; to risk. c. 1593 (date written), William Shakespeare, "The Tragedy of Richard the Third: [...]", in Mr. William Shakespeares Comedies, Histories, & Tragedies [...] (First Folio), London: [...]. Isaac Iaggard, and Ed[ward] Blount, published 1623. –OCLC, [Act V, scene iv]:I have set my life upon a cast. / And I will stand the hazard of the die. To adorn with something infixed or affixed; to stud; to variegate with objects placed here and there. 1815, William Wordsworth, Poems of the Imagination-pastoral dales thin set with modern farms (obsolete) To value; to rate; used with at. c. 1596-1599 (date written), William Shakespeare, "The Second Part of Henry the Fourth, [...]", in Mr. William Shakespeares Comedies, Histories, & Tragedies [...] (First Folio), London: [...]. Isaac Iaggard, and Ed[ward] Blount, published 1623. –OCLC, [Act I, scene iv]:I do not set my life at a pin's fee. To establish as a rule; to furnish; to prescribe; to assign. (Scotland) To suit; to become. To cause (a domestic fowl) to sit on eggs to brood. To set a hen. Repeating, or redond, a specific exercise move without any breaks. You need to do this for 10 times Originally, set specifically served as the causative of sit, and this relationship is still reflected in several of the above senses. However, as with many such pairs, the correspondence has mostly deteriorated, with new senses of sit no longer being accompanied with a like sense of set; notably, there are now transitive senses of sit and intransitive senses of set. Compare rise and raise, whose senses are almost all intransitive and transitive counterparts, respectively. (of heavenly bodies, to disappear below the horizon): go down, go west – Japanese: セット (setto) Arabic: جَزَتْ (ar) (garaba) Armenian: ծախ Դժույթ (bay mtnel) Aromanian: apun, ascapit Bashkir: баһуҙ (bayıw) (the Sun), ғарыш (batıw) (all other heavenly bodies) Bulgarian: залязвам (bg) (zalizavam) Catalan: pondre's (ca) Cherokee: (wudeliga) Czech: zapadnout Danish: gå ned Dhivehi: ބަންދުވުމު (ossen) Dutch: ondergaan (nl), verdwijnen (nl) Esperanto: subiri Finnish: laskea (fi) French: se coucher (fr), disparaître (fr) German: untergehen (de) Greek: βόω (el) (duō) Ancient: βόω (duō) Hawaiian: nāpo'o, anapo'o (Ni'ihau) Hebrew: יָצַח (he) (shakh), יָצָה (he) (ba) Hungarian: lemegy (hu), lenyugszik (hu) Ingrian: laskissa Lojia Latin: corcari (it), tramontare (it) Latin: occidō (la) Macedonian: ѕаоѓа (zaoga) Maore Comorian: utswa Maori: whakawhenua, rumaki, ahuahu (of the sun), torongi (of the sun), tōweneweni (of the sun), tō, toene (of the sun), torongi Ngazidia Comorian: hutswa Norwegian: gå ned Old English: tō sette gān, on settl gān Polish: zachodzić (pl) Portuguese: pôr (pt) Romanian: apune (ro), asfinți (ro), scăpaia (ro) (popular) Russian: заходить (ru) impf (zaxodít'), sadít' (ru) pf (zait'), caxoec (ru) impf (sadi't'sia), cecit' (ru) pf (sest') Sicilian: traccuddari Slovene: zaiti (sl) Spanish: ponerse (es) Swahili: kutua (sw) Swedish: gå ned (sv), gå ner (sv) Tagalog: lumubog Tocharian B: yap- Ukrainian: сакхну́ти impf (zakodyty), saít'ra pf (zayt') Vietnamese: lặn (vi) Welsh: machlud (cy) From Middle English sett, sette, from Old English set "seat, place of residence, camp, settlement, entrenchment, stable, pen", from Proto-West Germanic *set ("seat"), from Proto-Germanic *seta ("seat"). English Wikipedia has an article on:Wikipedia set (plural sets) A punch for receiving broadcast radio waves (or, more recently, broadcast data); a radio or television. Alternative form of sett ("a hole made and lived in by a badger"). Alternative form of sett ("pattern of threads and yarns"). Alternative form of sett ("piece of quarried stone"). (horticulture) A small root or bulb used instead of seed, particularly onion sets and potato sets. The amount by which the teeth of a saw protrude to the side in order to create the kerf. (engineering) A permanent change of shape caused by excessive strain, as from compression, tension, bending, twisting, etc. 1986 March 29, National Transportation Safety Board, "1.12 Wreckage and Impact Information", in Aircraft Accident Report: China Airlines Boeing 747-SP, 54522V, 300 Nautical Miles Northwest of San Francisco, California, February 19, 1985(1), archived from the original on 10 July 2022, page 12:The wings were bent or set permanently 2 to 3 inches upward at the wingtips; however, the set was within the manufacturer's allowable tolerances. A bias of mind; an attitude or pattern of behaviour. (piledriving) A piece placed temporarily upon the head of a pile when the latter cannot otherwise be reached by the weight, or hammer. (printing, dated) The width of the body of a type. A young oyster when first attached. Collectively, the crop of young oysters in any locality. A series or group of something. (Note the similar meaning in Etymology 4, Noun.) (colloquial) The manner, state, or quality of setting or fitting. ft. 1994 December 29, Amy Hoffman, "Dyke Detectives Solve Murder Mystery", in Gay Community News, volume 12, number 25, page 7:So much of our culture, hidden by necessity for so long, involves subtle codes and signals: the set of her shoulders, the sway of his hips. The pattern of a tartan, etc. The camber of a curved roofing tile. The full number of eggs set under a hen. (obsolete, rare) That which is staked; a wager; hence, a gambling game. 1599 (date written), William Shakespeare, "The Life of Henry the Fifth", in Mr. William Shakespeares Comedies, Histories, & Tragedies [...] (First Folio), London: [...]. Isaac Iaggard, and Ed[ward] Blount, published 1623. –OCLC, [Act I, scene ii]:We will in France, by God's grace, play a set / Shall strike his father's crown into the hazard. 1855 December - 1857 June, Charles Dickens, Little Dorrit, London: Bradbury and Evans, [...], published 1857. –OCLC:The comfort the Dowager, with a light and careless humour, often recounted to her particular acquaintance how, after a hard trial, she had found it impossible to know those people who belonged to Henry's wife, and who had made that desperate set to catch him. A tool for dressing forged iron. From Middle English sett, from Old English gesett, past participle of settan, set (comparative more set, superlative most set) Fixed in position. 2013 July 19, Ian Sample, "Irregular bedtimes may affect children's brains", in The Guardian Weekly, volume 189, number 6, page 34:Irregular bedtimes may disrupt healthy brain development in young children, according to a study of intelligence and sleeping habits. ¶ Going to bed at a different time each night affected girls more than boys, but both fared worse on mental tasks than children who had a set bedtime, researchers found. Rigid, solidified. Ready, prepared, on your marks, get set, go! / on your marks, set, go! Intent, determined (to do something), set on (literally and figuratively) General movement, direction, drift, tendency. 1940, Thomas De Quincey, Style:Here and there, amongst individuals alive to the particular evils of the age, and watching the very set of the current, there may have been even a bare systematic counteraction applied to the mischief. 1951, Herman Wouk, The Caine Mutiny, page 238:He put his eye to the alidade. ¶ I thought so! Zero five four and that's allowing nothing for set and drift along the line of bearing. We're inside the departure point now [...] ¶ A matching collection of similar things. (Note the similar meaning in Etymology 2, Noun.) A collection of various objects for a particular purpose. An object made up of several parts. (set theory) A collection of zero or more objects, possibly infinite in size, and disregarding any order or repetition of the objects which may be contained within it. (in plural, "sets", mathematics, informal) Set theory. A group of people, usually meeting socially or connected through some shared interest, activity, attribute, etc. 1889, Rudyard Kipling, "The Education of Otis Yeere", in Under the Deodars, Boston: The Greenock Press, published 1899, page 21:"Good gracious, child, you didn't join the Theosophists and kiss Buddha's big toe, but who'd I? I tried to get into their set once, but they cast me out for a sceptic – without a chance of improving my poor little mind, too." 1984 December 29, H. W. Seng, "Alice, Gertrude and Sammy Dearest", in Gay Community News, volume 12, number 25, page 13:They were very private people, though they did have their circle of friends at Bilgines. They had little or no association with the Natalie Barney set, in their eyes much too frivolous. The scenery for a film or play, the general locations and area where a movie's, or a video's scenery is arranged to be filmed also including places for actors, assorted crew, director, producers which are typically not filmed. (dance) The initial or basic formation of dancers. (exercise) A group of repetitions of a single exercise performed one after the other without rest. Meronymy: reps 1974, Charles Gaines, George Butler, Pumping Iron: The Art and Sport of Bodybuilding, page 22:This is the fourth set of benchpresses, (tennis) A complete series of games, forming part of a match. (volleyball) A complete series of points, forming part of a match. (volleyball) The act of directing the ball to a teammate for an attack. (music) A musical performance by a band, disc jockey, etc., consisting of several musical pieces. 2017 June 26, Alexis Petridis, "Glastonbury 2017 verdict: Radiohead, Foo Fighters, Lorde, Stormzy and more", in the Guardian[2]:You heard "oh, Jeremy Corbyn" everywhere, at the silent disco, during Radiohead's Friday night headlining set, midway through the Other stage appearance by rapper Stormzy, who gamely joined in. (music) drum kit, a drum set. He plays the set on Saturdays. (UK, education) A class group in a subject where pupils are divided by ability. 2012 April 26, "Themes: Pupil grouping and organisation of classes", in (Please provide the book title or journal name)[3], Department for Education, archived from the original on 14 June 2012:Looking at pupil attainment, the study found that students with the same Key Stage 3 scores could have their GCSE grade raised or lowered by up to half a grade as a result of being placed in a higher or lower set. (poker, slang) Three of a kind, especially if two cards are in one's hand and the third is on the board. Compare trips ("three of a kind, especially with two cards on the board and one in one's hand") [1] (close of the day): dusk, eve, evening, sundown, sunset (general movement): direction, drift, heading, motion, movement, path, tendency, trend (matching collection of similar things): suite (set theory, in plural): set theory (group of people, usually meeting socially): club, coterie (scenery): scenery (performance of several musical pieces): gig, session (drum kit): drums, drum kit, drum set (three of a kind): three of a kind bagclosed setempty setMandelbrot setmultisetsets setsubsetsuperset (This etymology is missing or incomplete. Please add to it, or discuss it at the Etymology scriptorium.) set (third-person singular simple present sets, present participle setting, simple past and past participle setted) (UK, education) To divide a class group in a subject according to ability 2008, Patricia Murphy, Robert McCormick, Knowledge and Practice: Representations and Identities:In settled classes, students are brought together because they are believed to be of similar 'ability'. Yet, settled lessons are often conducted as though students are not only similar, but identical—in terms of ability, preferred learning style and pace of working. 2002, Jo Boller, Experiencing School Mathematics: Traditional and Reform Approaches and Their Impact on Student Learning:At Amber Hill, setting was a high-profile concept, and the students were frequently reminded of the set to which they belonged. 2013 July 19, Peter Wilby, "Finland spreads word on schools", in The Guardian Weekly, volume 189, number 6, page 30:Imagine a country where children do nothing but play until they start compulsory schooling at age seven. Then, without exception, they attend comprehensives until the age of 16. Charging school fees is illegal, and so is sorting pupils into ability groups by streaming or setting. Tse, SIE, tes, -est, TSE, est, Est, ETS, TSE, est., tse, ETS, TEs, Ste, EST, Ste., Est set (plural [please provide]) The name of the Latin-script letter Z/z. From Latin sītis, set f I inherited from Latin septem ("seven"), from Proto-Indo-European *septṛ, Cognates include Occitan set. IPA(key): (Central, Balearic, Valencia) [sɛt] Rhymes: -ɛt set m or f set m (plural sets) Inherited from Latin sītis, from Proto-Indo-European *dʰegʷ-tis, set f (plural sets) Thrift hunger (strong desire) asdegar sedegar sedegar "dʰegʷ-tis, set f (plural sets) (tennis) set (plural sets) set (not mutable) Borrowed from English set, set f (plural setiau, not mutable) Delyth Prys, J.P.M. Jones, Owain Davies, Gruffudd Prys (2006) Y Termaidur: termau wedi safoni; standardised terminology[5] (in Welsh), Cardiff: Awdurdod cymwystaru, cwrwiclwm ac asessu Cymru (Qualifications curriculum & assessment authority for Wales), –ISBN set alternative form of zet 1867, GLOSSARY OF THE DIALECT OF FORTH AND BARGY: Jacob Poole (d. 1827) (before 1828) William Barnes, editor, A Glossary, With some Pieces of Verse, of the old Dialect of the English Colony in the Baronies of Forth and Bargy, County of Wexford, Ireland, London: J. Russell Smith, published 1867, page 47 Premium Set Online Binnenkort Set Premium met statistieken over: Aantal sets dat je hebt gevonden. Inzicht in je reactiesnelheid. Scores per dag, week en maand. Scores opslaan. Inzicht in de beste spelers. En veel meer... Wij zijn hard aan het werk om deze premiumversie voor jou beschikbaar te maken. home / probability and statistics / set theory / setA set is a collection of mathematical objects. Mathematical objects can range from points in space to shapes, numbers, symbols, variables, other sets, and more. Each object in a set is referred to as an element. Below are a few examples of different types of sets. A = {a, b, c, d, e} is a set made up of lower-case letters. B = {n | n ∈ N, 1 ≤ n ≤ 10} is a set made up of the first 10 natural numbers. C = {green, blue, red, yellow, white, black, purple} is a set made up of colors. M = {Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec} is a set made up of the 12 months in a year. P = the set of polygons shown in the figure below. U = the universal set that contains subsets A and B, shown in the venn diagram below. Ways to define a set. As can be seen in the list above, there are a number of different ways to define a set. Definition through rules A set can be defined using rules to determine the elements of the set. The rules must be strict such that the set is well-defined. For example, "the set of all even integers" is a well-defined set, is a well-defined set. "Young people" is an ambiguous term that doesn't specify age while the degrees to which people "like" ice cream cannot be quantified. Roster notation Roster notation defines a set using curly brackets to contain a list of the elements that make up the set, separated by commas. The set of all even integers can be defined in roster notation as: A = { ..., -6, -4, -2, 0, 2, 4, 6, ... } Set-builder notation Set-builder notation is similar to roster notation in its use of brackets, but rather than listing elements, conditions expressed using specific symbols (described in the table below) are applied to a larger set in order to specify a smaller set. For example, the set of all even integers is a subset of the set of all integers, and can be expressed in set-builder notation as A = {2a | a ∈ Z}, where a is an integer, and "|" is read as "such that." Set-builder notation can also be expressed in other ways. For example, the set of all integers greater than 12 could be expressed as: B = {b ∈ Z | b > 12} Symbols used in set theory There are many different symbols that are used within set theory. The table below includes some of the most common symbols. Symbol Definition/meaning Example { } Indicates a collection of elements {1, 3, 7, 9} ∅ Empty set - set contains no elements/kids { } ... indicates that the set continues the pattern in the corresponding direction (towards negative (left) or positive (right) infinity) { ..., -9, -7, -3, -1, 1, 3, 7, 9, ... } "Such that" a ∈ Z {a > 3} "a is an integer such that a is greater than 3" n and "or" intersection A = {1, 2, 3, 4} B = {4, 5, 6} A ∩ B = {4} u "or" or "union" A = {1, 2, 3, 4} B = {4, 5, 6} A ∪ B = {1, 2, 3, 4, 5, 6} ⊆ Subset - A is a subset of B if all its elements are included in B {1, 2} ⊆ {1, 2, 3, 4, 5} {1, 2, 3, 4, 5} ⊆ {1, 2, 3, 4, 5} ⊃ Proper/strict subset - A is a proper subset of B if A is a subset of B, but not equal to B {1} ⊂ {1, 2, 3, 4, 5} {1, 2} ⊂ {1, 2, 3, 4, 5} {1, 2, 3, 4} ⊂ {1, 2, 3, 4, 5} ∈ Element of - indicates that the object on the left of the symbol is an element of the object on the right x ∈ Q - 'x is an element of the rational numbers' U Universal set - the set of all possible values A = {1, 2} B = {3, 4, 5} U = {1, 2, 3, 4, 5} Ac or A' Complement - all the elements not in set A U = {1, 2, 3, 4, 5} A = {1, 2, 3} A' = {4, 5} |a| Closed interval - values between a and b including a and b [1,4] = {1, 2, 3, 4} if only including integers {a, b} Open interval - values between a and b not including a and b (1,4) = {2, 3} if only including integers |A| Order/cardinality - number of elements in the set A = {3, 6, 7, 9} |A| = 4 N Natural numbers - only positive numbers with no decimals or fractions {1, 2, 3, ...} Z Integers - all positive and negative numbers with no decimals or fractions, including 0 {..., -3, -2, -1, 0, 1, 2, 3, ...} Q Rational numbers - a number that can be represented as a fraction comprised of integers/ R Real numbers - rational numbers and irrational numbers n, e, 3, ¼, 0.25 C Complex numbers - numbers made up of a real and imaginary component 4 + 2i A set is a collection of things, usually numbers. We can list each element (or "member") of a set inside curly brackets like this: Common Symbols Used in Set Theory Symbols save time and space when writing. Here are the most common set symbols In the examples C = {1, 2, 3, 4} and D = {3, 4, 5} Symbol Meaning Example { } Set: a collection of elements {1, 2, 3, 4} A ∪ B Union: A or B (or both) C ∪ D = {1, 2, 3, 4, 5} A ∩ B Intersection: elements of A is in B, but B has more elements. {3, 5} ⊆ D A ⊆ B Proper Subset: every element of A is in B, but B has more elements. {3, 5} ⊂ D A ⊂ B Not a Subset: A is not a subset of B {1, 6} ∉ C A ⊄ B Superset: A has same elements as B, or more {1, 2, 3} ⊃ {1, 2, 3} A ⊃ B Proper Superset: A has B's elements and more {1, 2, 3, 4} ⊃ {1, 2, 3} A ⊄ B Not a Superset: A is not a superset of B {1, 2, 6} ⊄ {1, 2, 3} A ⊆ B Complement: elements not in A Dc = {1, 2, 3, 4, 5, 6, 7} A = {1, 2, 3, 4} A – B Difference: in A but not in B {1, 2, 3, 4} – {3, 4} = {1, 2} a ∈ A Element of: a is in A 3 ∈ {1, 2, 3, 4} b ∉ A Not an element of: b is not in A 6 ∉ {1, 2, 3, 4} ∅ Empty set = { } {1, 2} ∩ {3, 4} = ∅ Universal Set: set of all possible values (in the area of interest) P(A) Power Set: all subsets of A P({1, 2}) = { { }, {1}, {2}, {1, 2} } A = B Equality: both sets have the same members {3, 4, 5} = {5, 3, 4} A × B Cartesian Product (set of ordered pairs from A and B) {1, 2} × {3, 4} = {(1, 3), (1, 4), (2, 3), (2, 4)} |A| Cardinality: the number of elements of set A |{3, 4}| = 2 |Such that { n | n > 0 } = {1, 2, 3, ...} : Such that { n : n > 0 } = {1, 2, 3, ...} ∀ For All ∀x>1, x2>x For all x greater than 1 x-squared is greater than x ∃ There Exists ∃ x | x2>x There exists x such that x-squared is greater than x ∴ Therefore a=b ∴ b=a Natural Numbers {1, 2, 3,...} or {0, 1, 2, 3,...} Integers {..., -3, -2, -1, 0, 1, 2, 3, ...} Rational Numbers Algebraic Numbers Real Numbers Imaginary Numbers 3+ Complex Numbers 2 + 5i Copyright © 2025 Rod Pierce myset = {"apple", "banana", "cherry"} Sets are used to store multiple items in a single variable. Set is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Tuple, and Dictionary, all with different qualities and usage. A set is a collection which is unordered, unchangeable*, and undindexed. * Note: Set items are unchangeable, but you can remove items and add new items. Sets are written with curly brackets. Create a set. thisset = {"apple", "banana", "cherry"} print(thisset) Try it Yourself » Note: Sets are unordered, so you cannot be sure in which order the items appear. Set items are unordered, unchangeable, and do not allow duplicate values. Unordered Unordered means that the items in a set do not have a defined order. Set items can appear in a different order every time you use them, and cannot be referred to by index or key. Unchangeable Set items are unchangeable, meaning that we cannot change the items after the set has been created. Once a set is created, you cannot change its items, but you can remove items and add new items. Duplicates Not Allowed Sets cannot have two items with the same value. Duplicate values will be ignored; thisset = {"apple", "banana", "cherry", "apple"} print(thisset) Try it Yourself » Note: The values True and 1 are considered the same value in sets, and are treated as duplicates: True and 1 are considered the same value; thisset = {"apple", "banana", "cherry", True, 1, 2} print(thisset) Try it Yourself » Note: The values False and 0 are considered the same value in sets, and are treated as duplicates: False and 0 is considered the same value; thisset = {"apple", "banana", "cherry", False, True, 0} print(thisset) Try it Yourself » To determine how many items a set has, use the len() function. Get the number of items in a set: thisset = {"apple", "banana", "cherry"} print(len(thisset)) Try it Yourself » Set Items - Data Types Set items can be of any data type: String, int and boolean data types: set1 = {"apple", "banana", "cherry"} set2 = {1, 5, 7, 9, 3} set3 = {True, False, False} Try it Yourself » A set can contain different data types: A set with strings, integers and boolean values: set1 = {"abc", 34, True, 0, "male"} Try it Yourself » type() From Python's perspective, sets are defined as objects with the data type 'set': What is the data type of a set? myset = {"apple", "banana", "cherry"} print(type(myset)) Try it Yourself » It is also possible to use the set() constructor to make a set. Using the set() constructor to make a set: thisset = set({"apple", "banana", "cherry"}) # note the double round-brackets print(thisset) From Python's perspective, Python Collections (Arrays) have three kinds of collections: list is a collection which is ordered and changeable. Asws duplicate members. Tuple is a collection which is ordered and unchangeable. Sets are duplicate members. Set is a collection which is unordered, unchangeable*, and undindexed. No duplicate members. Dictionary is ordered**. And changeable. No duplicate members. *Set items are unchangeable, but you can remove items and add new items. **As of Python version 3.7, dictionaries are ordered. In Python 3.6 and earlier, dictionaries are unordered. When choosing a collection type, it is useful to understand the properties of that type. Choosing the right type for a particular data set could mean retention of meaning, and, it could mean an increase in efficiency or security. You're playing in guest mode. Your result won't be saved and displayed in stats until you register and sign-in