

X.

X (eks), pl. X's, X's (e'kséz), the twenty-fourth letter of the modern and the twenty-first of the ancient Roman alphabet, corresponding in form and position to the Greek X. The early Greek forms χ X represented the aspirated voiceless velar (kh) in the Ionian alphabet, and (ks) in the Chalcidian alphabet. (In the former, (ks) was denoted by Ξ , in the latter, (kh) was denoted by Ψ .) X was adopted by the Latins with the value (ks) from the Greek alphabet introduced into Italy. The ancient Roman name of the letter was *ix*, which is that given by Ælfric in his Grammar (c 1000).

Words having initial *x* (pronounced as *z*) in English are nearly all of Greek origin; a few, as *xebec*, *Xerez*, have *x* representing early Sp. *x* (now *j*). In OE. *x* was used medially and finally as a variant spelling of *cs* (whether original or standing for *sc*), e. g. *æx*, *cax* = *æcus*, *acus*, *æsc* AXE, *dxian* = *desian*, *fxian* to ASK, *fixas*, pl. of *fisc* FISH, *fixian* = *fiscian* to FISH, *waxan* = *wascan* to WASH. Other variants are *cx*, *hx*, *xs*, *cx*, *hxs*, as *meohx*, *mixon* MIXEN, *axsan* ASHES. Similar spellings occur in the Cotton MS. of Cursor Mundi, e. g. *flex*(s flesh), *wexs* wash, *fixes* fishes; the same MS. has the unexplained spellings *fux*(o)l, *foux*(u)l, etc. of FOWL sb. In East Anglian texts of the 14th to the 16th century *x* is frequently written for initial *sc*, *sch* in *xal* shall, *xuld* should; *xsal* also is found in the Paston Letters; instances of other words so written are only occasional, e. g. *xad* shed (pa. pple.), *xouyn* shove, *xultry* shoulders. Initial *x* stands for *sh* (or *s*) in early forms of some oriental words, as *xerif* SHERRIF (after early Sp. *xerife*), *xaraffe*, *aff* SARAF, and *Xinto* SHINTO. Other temporary uses of *x*, but with its normal value (ks), are found in the once general *axes*, *axis* ACCESS, *hunn* HUNKS, and the less common *exelent* EXCELLENT, *exite* EXCITE; on the other hand *pax* = *pocks* has become permanent, and *sor* has been adopted in the hosiery trade as a convenient shortening of *socks*.

1905 WELLS *Ripps* ii. § 1 He would have considered himself the laughing stock of Wood Street if he had chanced to spell *socks* in any way but 'sox'.

The phonetic values of *x* in English are three, of which the commonest is (ks), as in *axis* (æ'ksis), *buxom* (bʊksəm), *doxology* (dɒksə'lɒdʒi), *excuse* (ɛkskiʊs), *expense* (ɛkspens), *oxen* (ɒksn), *proximity* (prɒksɪ'mɪtɪ), *tax* (tæks). The pronunciation of the prefix *ex-* followed by a vowel or *h* varies according as it bears the stress or not, the general rule being that *ex-* = (eks) and *ex-* = (ɛgz), as *exile* (e'ksɔɪl), *exact* (ɛgzæ'kt), *exhort* (ɛgzɔ'rt); but there is considerable variety in individual words and individual usage: see *EX-prefix* 1 note. The same general principle governs the pronunciation of *anxious* (æ'ŋkʃəs), *anxiety* (æŋzɪ'ɛtɪ), *luxury* (lʊ'ksɪəri), *luxurious* (lʊ'ksɪəriəs), *Alexander* (ælɛgzə'ndɔː), *Alexandrine* (ælɛgzə'ndrɪn); but here also individual usage varies. The third value (z), arising from a reduction of (gz), is given in all cases to initial *x*, as *Xerxes* (zɛ'ksɪz); this value is shown in many instances in the 17th and 18th centuries by the spelling with *z*, as *Zanthian*, *zebeck*, *Zerez*, and instances are not uncommon in the 19th century of *zantho-* and *xylo-* for *xantho-* and *xylo-*; early examples are *Zantius* Xanthus (Lydg. *Troy Bk.* ii. 731 rubric, 15th cent.), *zyph* XIPII (1572). Cf. *Santippe* Xanthippe (Chaucer), *Ceres* Xerxes (Wyntoun *Chron.*, S. T. S., III. 54). A similar reduction of *x* took place in French:

x, if he be the fyrste letter of a word, as *xenotrophe*, *xylobatone*, whiche they sounde but *s*, sayenge *senotrophe*, *xylobatone*, for they can nat gyve *s*, whiche is also a greke letter, is true souwde. (1530 PALSGR. *Esclarc.* i. xxv.)

I. 1. The letter or its sound.
c 1000 ÆLFRIC *Gram.* (Z) 6, *x* ana ongynd of þam stæfe i æfter uðwitenæ tæcinge. 1530 PALSGR. 38 Note that *x* shall never be sounded in frenche lyke as he is in latyn, or as we wolde do in our tonge, in no wyse, but lyke an *s*. c 1620 A. HUME *Brit. Tongue* (1865) 12 The top of the tongue striking on the inward teeth forms d, l, n, r, s, t, and z. The middle tongue striking on the roof of the mouth forms the rest, c, g, k, j, q, and x. 1636 B. JONSON *Engl. Gram.* i. iv, VOL. X.

X is rather an abbreviation, or way of writing with us, then a Letter:—It begins no word with us, that I know, but ends many. 1735 MIDDLETON *Diss. Orig. Printing Eng.* 7, I take the Date in question to have been falsified originally by the Printer, and an x to have been dropt. In the Age of its Impression. a 1845 BARHAM *Jugol. Leg. Ser. III. Lord of Thoulouze* xxi, His cap, and his queer cloak all X's and Izzards. a 1849 FOR *Tales, X'ing a Paragrab*. When the exigency does occur, it almost always happens that *x* is adopted as a substitute for the letter deficient. 1864 BOUTELL *Her. Hist. & Pop.* xxi. (ed. 3) 360 Az, on a cross arg. the letter X sa. 1878 W. J. CHIFFS *Old Engl. Plate* 110 Much of the old plate of the sixteenth and seventeenth centuries that is still to be found in the counties of Devon and Cornwall bears the old Exeter mark, which was a large Roman capital letter X crowned.

b. The letter considered with regard to its shape: chiefly *attrib.* and *Comb.* Hence identified with a cross. X's and O's: the game of noughts and crosses.

1545 ELYOT, *Decussis*... is also a fourme in any thyng representyng the letter X, whiche parted in the myddell maketh an other figure called *Quincunx*. V. 1769 in C. Welsh *Bookseller of Last Cent.* 354 Those [books] with an X. 1798 *Hull Advertiser* 28 July 2. i Chais in sets... with W tableu and X backs. 1837 HEARST *Engin. & Mech. Encycl.* II. 876 The said pin traverses the X groove from side to side. 1839 *Penny Cycl.* XV. 176/1 Suppose a cross like an X or V to be cut out of brass-plate. 1861 HAGEN *Synopsis Neuroptera N. Amer.* 213 An x-shaped spot. 1866 BLACKMORE *Craddock Nowell* xii, The boy leaped the new X fence very cleverly. 1893 SELOUS *Trav. S. E. Africa* 402, I will write your name... on the paper... and you must make an 'x' behind your name. 1894 CROCKETT *Raiders* 92 It wasna playing at x's and o's to be steering for that crossbones of a Dutchman. 1899 JESSE L. WILLIAMS *Stolen Story*, etc. 54 Billy, reaching the end of the page, made a double X mark to show that it was the end of the story. 1911 P. BRIDGES *Green Wave of Destiny* xiv. 211 There was just room between the humps for two narrow sacks placed X-wise.

c. Used like other letters of the alphabet to denote serial order, as in the signatures of the sheets of a book, the batteries of the Royal Horse Artillery, etc.

II. Symbolic uses.

2. The Roman numeral symbol for ten (or tenth); so xx = twenty (in early use also for 'score', as *ijxx* = 'three score', 60; also occas. *xxⁱⁱ* = *L. viginti*), *xxx*, occas. *xxx^{vj}* = thirty, etc.

c 1000 O. E. *Chron.* an. 409 (Parker MS.) *præt* was embe .xi. hund wintra & x. wintra þes heo getimbrod was. a 1400 *Wyclif's Bible* Pol. (1850) l. 17 There weren not left... no but v. hundrid horsmen, and x. charis, and x. thousand of footmen. 1426 AUDELAN *Poems* (Percy Soc.) 71 *four* x. comandmentis 3e most com. c 1450 *Mirror Salutation* (Roxb.) 146 The feest of kyng Aswere was *ixxx* dayes duryng. 1478 W. PASTON in *P. Lett.* III. 237 He seythe ye be *xxii*, in hys dette. 1481 *Howard Housch. Bks.* (Roxb.) 9 For j. m. *ij* *ijxx* mayners. 1481-90 *Ibid.* 451 The nombir of the horse ys *vii* *ij*. 1488 *Henry's Willace* v. 909 *XXXV* with him off nobill men at wage. 1489 MARG. PASTON in *P. Lett.* III. 350 Wretyn at London, the x. day of Februar. 1535 *Bury Willis* (Camden) 126 To my valentyne Agnes Ilylon x s. 1537 CROMWELL in *Merriman Life & Lett.* (1902) II. 53 Frome London the xth daye of Apryll. 1638 *Forde Fancies* III. ii, If my watch keep faire decorum, Three quarters have neere past the figure X. 1686 BURNET *Trav.* 241 Pope Leo the Xs time.

† b. X^r: abbreviation of *December*. *Obs.*
1624 SIA W. ASTON in *Goodman Court Jas.* I (1839) 11. 369 Madrid, 24 of X^r 1624.

c. X: a ten-dollar note. XX: a twenty-dollar note. U. S. *collog.*

1837 *Knickerbocker Mag.* IX. 96 My wallet... distended with V's and X's to its utmost capacity. 1883 F. M. CHAMBERLAIN *Dr. Claudius* xx, The Custom-House officials... who know the green side of a XX.

3. In *Algebra* and *Higher Mathematics* used as the symbol for an unknown or variable quantity (or for the first of such quantities, the others being denoted by *y*, *z*, etc.); *spec.* in analytical geometry, the sign for an abscissa, or quantity measured along the principal axis of co-ordinates (hence called the *axis* of *x*). Hence allusively for something unknown or undetermined (also *attrib.* and in *Comb.*). See also X RAYS.

The introduction of *x*, *y*, *z* as symbols of unknown quantities is due to DESCARTES (*Geométrie*, 1637), who, in order to provide symbols of unknowns corresponding to the symbols *a*, *b*, *c* of knowns, took the last letter of the alphabet, *x*, for the first unknown and proceeded backwards to *y* and *z* for the second and third respectively. There is no evidence in support of the hypothesis that *x* is derived ultimately from the medieval transliteration *xei* of *شي* *shai* 'thing', used by the Arabs to denote the unknown quantity, or from the compendium for *L. res* 'thing' or *radix* 'root' (resembling a loosely-written *x*), used by medieval mathematicians.

1660 J. MOORE *Arith.* II. i. § 10. 16 (*Algebra*) Note always the given quantities or numbers with Consonants, and those which are sought with Vowels, or else the given quantities with the former letters in the Alphabet, and the sought with the last sort of letters, as *xy*, *z*, &c. lest you make a confusion in your work. 1709 J. WARD *Yng. Math. Guide* IV. iii. (1713) 380 Let *y* = AS the Abscissa, and *z* = ST, put *x* = Aa the Distance between the two Semi-ordinates; which we suppose to be infinitely near each other. 1726 E. STONE *New Math. Dict.* s. v. *Conoid*. If *a* be equal to the Transverse Axis of the Hyperbola, generating a Conoid, and *x* be the Height of the Conoid, or the Abscissa of the Hyperbola. 1771 *Encycl. Brit.* II. 269 The equation of any curve, is an algebraic expression, which denotes the relation betwixt the ordinate and abscissa; the abscissa being equal to *x*, and the ordinate equal to *y*. 1839 *Penny Cycl.* XIII. 175/2 (*Kant*) What is that unknown principle (= X) on which the understanding relies, when of the subject A it finds a foreign predicate B, and believes itself justified in asserting their necessary connexion? 1893 F. ADAMS *New Egypt* 29 The *x* of the Egyptian equation being pretty obviously the Egyptian people. 1898 W. T. STEAD in *Daily News* 8 Nov. 5/4 What manner of man is its author? He is the X in the equation. 1898 A. LANG *Making Relig.* II. 15 Research in the X-region is not a new thing under the sun. 1903 GREENOUGH & KITTREGE *Words* v. 53 To make fun of the *x*'s and *y*'s of the algebraist. 1906 *Daily Chron.* 12 May 4/3 There is 'a wholesome distrust,' says Professor Ewing, 'of what may be called *x*-chasing.'

b. Hence used *attrib.* as an indeterminate numeral adj. = 'an unknown number of...' Chiefly *humorous*.

1848 THACKERAY *Van. Fair* xi, The black porker's killed—weighed *x* stone. 1904 *Brit. Med. Jnl.* 15 Oct. 965 In the union of egg and sperm we witness the joining together of but two sets of characters and not that of 'x' sets derived from as many ancestors.

c. Put for a person's name when unknown or left undetermined. Also X. Y. (See also 5.)

1797 in *Corr. Pinckney, Marshall & Gerry* (1798) 36 We have promised Messrs. X. and Y. that their names shall in no event be made public. 1798 *Ibid.* 23 The names designated by the letters W. X. Y. Z. in the following copies of letters from the Envoys of the United States to the French Republic. 1810 BENTHAM *Packing* (1821) 125 As to Mr. x, I borrow, on this occasion for his use, one of the names employed by mathematicians for the designation of their unknown quantities. 1848 THACKERAY *Ballads of Policeman X, Bow Street* ad fin., Pleaceman X 54. *Ibid.*, *Three Christmas Waits* i My name is Pleaceman X. 1853 LYTTON *My Novel* XII. iv, The house-steward... was in fact the veritable XY of the *Times* [newspaper], for whom Dick Avenel had been mistaken. 1857 DICKENS *Dorrit* II. xii, The son of P. Q... whom we would call X. Y. 1873 H. DRUMMOND *New Evangelism* etc. (1899) 109 X won't be preached to along with Y and Z and Q; that won't do X any good, for he thinks it is all meant for Y, Z, and Q. 1899 O. SEAMAN *In Cap & Bells* (1900) 47 For terror of the Law and him that waits Outside, the unknown X, to hale us hence, 1901 ELINOR GLYN *Visits Elizabeth* (1906) 70 You feel obliged to ask the X's, the Y's, and the Z's from duty, and so you do... This is the kind of assortment that arrives: Papa X, Mamma X, and two girl X'es; Papa Y, Mamma Y, and Master and Miss Y; Papa Z, Mamma Z, Aunt Z, and Mlle. Z—such a party!

d. In wireless telegraphy (also in *comb. x-stopper*): see *quot.*

1906 J. A. FLEMING *Princ. Electric Wave Teleg.* ix. 611 The electric discharges due to atmospheric electricity create electromagnetic waves of an irregular type, which interfere with wireless telegraphy by causing irregular signals. These are technically termed X's... Means have been devised for sifting out the waves due to these irregular atmospheric disturbances... One of these devices, due to Mr. Marconi, has received the name of an X-stopper.

4. In designations of brands of ale, stout, or porter, XX or double X denotes a medium quality, XXX or treble X the strongest quality. Also in the marking of qualities of tin-plate.

1827 HONE *Every-day Bk.* II. 11 A lover of the best London porter and double X. 1828 MISS MITFORD *Village Ser.* III. (1863) 47 His best double X. 1839 BARHAM *Jugol. Leg. Ser. I. St. Dunstan*, Keep clear of Broomsticks, Old Nick, and three XXX's. 1839 *USA Dict. Aris.* etc. 1254 The following Table shows the several sizes of tin plates [and] the marks by which they are distinguished... Common, No. 1. C. 1... Two crosses, 1... xx. 1. Three crosses, 1... xxx. 1. Four crosses, 1... xxxx. 1. 1854 R. S. SURTEES *Handley Cr.* ix. (1901) 75 'And you musicians', turning to the promenaded band, who were hard at work with some XX, 'be getting your instruments ready.' 1856 GEO. ELIOT *Ess.* (1884) 87 Barclay's treble X. 1886 A. G. MURDOCH *Sc. Readings* Ser. 1. 98 The XXX stout was brought in.

5. XYZ: used to denote some thing or person unknown or undetermined (cf. 3).

1808 COLERIDGE *Lett. to F. P. Estlin* (1884) 105, I use it rather as an XYZ, an unknown quantity. 1813 BVAOK *Lett.* 23 Nov., Wks. 1832 II. 269 Junius was X. Y. Z., Esq. a 1834 COLERIDGE *Ess. Faith in Lit. Rem.* (1839) IV. 426 [This] determines whether X Y Z be a thing or a person. 1885 J. K. JEROME *On the Stage* ii, Among the sham agents must be classed the 'Professors,' or 'X.Y.Z.'s.