Glossary of CAD Terms

1D unit block: A 1-unit, one-dimensional object, such as a straight line segment, saved as a block. (Ch. 24)

2D unit block: A 2D object that fits into a 1-unit × 1-unit square, saved as a block. (Ch. 24)

3D unit block: A 3D object that fits into a 1-unit × 1-unit × 1-unit cube, saved as a block. (Ch. 24)

absolute coordinates: Coordinate distances measured from the origin. (Ch. 3)

absolute path: A path to a file defined by the location of the file on the computer system. (Ch. 31)

absolute value: In property settings, a value set directly instead of referenced by layer or by block. An absolute value overrides the corresponding layer settings. (Ch. 5, 13)

acquired point: A point found by moving the crosshairs over a point on an existing object to reference the point when picking a new point. (Ch. 7)

action: A definition that controls how dynamic block parameters behave. (Ch. 26)

action bars: Toolbars that allow you to view, remove, and adjust actions. (Ch. 26)

action parameter: A specification for block construction that controls block characteristics such as positions, distances, and angles of dynamic block geometry. Also called parameter. (Ch. 26)

alert: A pop-up that indicates a required action or potential problem. (Ch. 1)

aligned dimensioning: A dimensioning system in which dimension values align with dimension lines. (Ch. 16)

aligned section: Section used when a feature is out of alignment with the center plane. (Ch. 23)

alignment parameter: A parameter that aligns a block with another object in the drawing. (Ch. 26)

alignment paths: Temporary lines and arcs that coincide with the position of existing objects. (Ch. 7)

alternate units: Dimensions in which measurements in one system, such as inches, are followed by bracketed measurements in another system, such as millimeters. Also called dual dimensioning units. (Ch. 16)

angular dimensioning: A method of dimensioning angles in which one corner of an angle is located with a dimension and the value of the angle is provided in degrees. (Ch. 17)

annotation: Textual information presented in notes, specifications, comments, and symbols. (Ch. 9, 18)

annotational format: A dimensional constraint format in which the constraints look like traditional dimensions, using a dimension style. Annotational dimensional constraints can still control the size or location of geometry. (Ch. 22)

annotations: Letters, numbers, words, and notes used to describe information on a drawing. (Ch. 30)
annotation scale: The scale AutoCAD uses to calculate the scale factor applied to annotative objects. (Ch. 9, 30)

annotative object representation: Display of an annotative object at an annotation scale that the object supports. (Ch. 30)

annotative objects: AutoCAD objects that can adapt automatically to the current drawing scale. (Ch. 30)

annotative text: Text scaled by AutoCAD according to the specified annotation scale. (Ch. 9)

arc: Any portion of a circle, usually dimensioned according to the radius (R). (Ch. 4)

archiving: Gathering and storing all drawings and associated files related to a project. (Ch. 32)

array: Multiple copies of an object arranged in a pattern. (Ch. 12)

array action: An action used to array objects within the block based on preset specifications. (Ch. 26)

associated list: The ASME term describing tables added or related to engineering drawings. (Ch. 21)

associative array: An adjustable array object; all items are grouped to form a single object that you can modify, such as changing the number of items and spacing between items. (Ch. 12)

associative dimension: A dimension in which all elements are linked to, or associated with, the dimensioned object; updates when the associated object changes. (Ch. 16, 20)

associative hatch pattern: A hatch pattern that updates automatically when you edit associated objects. (Ch. 23)

attachment: An xref linked with or referenced into the current drawing. (Ch. 31)

attributes: Text-based data assigned to a specific object. Attributes turn a drawing into a graphical database. (Ch. 25)

auto-fill: A table function that fills selected cells based on the contents of another cell. (Ch. 21)

automatic save: A save procedure that occurs at specified intervals without your input. (Ch. 2)

automatic windowing: A selection method that allows you to select multiple objects at one time without entering a selection option. Also called implied windowing. (Ch. 3)

auxiliary view: View used to show the true size and shape of a foreshortened surface. (Ch. 8)

background mask: A mask that hides a portion of objects behind and around text so that the text is unobstructed. (Ch. 9)

balloons: Circles that contain a number or letter to identify the assembly component and correlate the component to a parts list or bill of materials. Balloons connect to a component with a leader line. (Ch. 20)

base dimension: The dimension line that remains in the same location, with which other dimension lines align or space. (Ch. 20)

baseline dimensioning: A method of dimensioning in which several dimensions originate from a common surface, centerline, or center plane. (Ch. 17)

base point: The initial reference point AutoCAD uses when stretching, moving, copying, and scaling objects. (Ch. 11)

base point parameter: A parameter that defines an alternate base point for a block. (Ch. 26)

basic dimension: A theoretically perfect dimension used to describe the exact size, profile, orientation, and location of a feature. (Ch. 16, 19)

big font: A supplement that provides Asian and other large-format fonts that have characters and symbols not present in other font files. (Ch. 9)
bilateral tolerance: A tolerance style that permits variance in both the positive and negative directions from the specified dimension. (Ch. 19)

bind: Convert an xref to a permanently inserted block in the host drawing. (Ch. 31)

block: An object, such as a symbol, saved and stored in a drawing for future use. (Ch. 8, 18, 24)

block definition: Information about a block stored within the drawing file. (Ch. 24)

block insertion tools: Blocks located on a tool palette. (Ch. 24)

block properties table: A table of action parameters and/or constraint parameters that allows you to create multiple block properties and then select them to create block references. (Ch. 27)

block reference: A specific instance of a block inserted into a drawing. (Ch. 24)

boundary: The area filled by a hatch. (Ch. 23)

boundary edge: The edge to which objects such as lines, arcs, and polylines extend. (Ch. 11)

boundary set: The part of the drawing AutoCAD evaluates to define a boundary. (Ch. 14)

broken-out section: Section that shows a small portion of the object removed. (Ch. 23)

BSI: British Standards Institution. (Ch. 1)

button: A “hot spot” button on the screen that you pick to access an application, command, or option. (Ch. 1)

callout block: A block that uses attributes containing fields that link the view number and sheet title between the sheet set and drawing (sheet) views. (Ch. 33)

Cartesian (rectangular) coordinate system: A system that locates points in space according to distances from three intersecting axes. (Ch. 3)

cascading menu: A menu of options related to the chosen menu item. Also called cascading submenu. (Ch. 1)

cell styles: Styles that allow you to assign specific formatting to data, header, and title row cells. (Ch. 21)

centroid: A coordinate that is the center of area for a region. (Ch. 12)

chain action: An action that triggers another action when you modify a parameter. (Ch. 26)

chain dimensioning: A method of dimensioning in which dimensions appear in a line from one feature to the next. (Ch. 17)

chamfer: In mechanical drafting, a small, angled surface used to relieve a sharp corner. (Ch. 4, 11, 18)

chart dimensioning: A type of dimensioning in which the variable dimensions are shown with letters that correlate to a chart in which the possible dimensions are given. (Ch. 18)

check box: A selectable box that turns an item on (when checked) or off (when unchecked). (Ch. 1)

child: A style override. (Ch. 16)

chord length: The linear distance between two points on a circle or arc. (Ch. 4)

circle: A closed curve with a constant radius (R) around a center point; usually dimensioned according to the diameter (Ø). (Ch. 4)

circular reference error: An error that occurs when a block definition references itself. (Ch. 24)

circumscribed polygon: A polygon drawn outside an imaginary circle so that the sides of the polygon are tangent to the circle. (Ch. 4)
**coincident:** A geometric construction that specifies two points sharing the same position. (Ch. 22)

**color-dependent plot style table:** A file that contains plot style settings used to assign plot values to object colors. (Ch. 28)

**command:** An instruction issued to the computer to complete a specific task. For example, use the `LINE` command to draw line objects. (Ch. 1)

**command alias:** Abbreviated command name entered at the keyboard. (Ch. 1)

**command line:** Area where you can type commands (command names) and type or select command options. (Ch. 1)

**Commercial and Government Entity Code (CAGE Code):** A five-digit numerical code identifier applicable to any organization that produces items used by the federal government. (Ch. 25)

**composition:** The spacing, layout, and appearance of text. (Ch. 9)

**computer-aided design and drafting (CADD):** The process of using a computer with CADD software to design and produce drawings and models. (Ch. 1)

**concentric:** Describes arcs, circles, and/or ellipses sharing the same center point. (Ch. 22)

**configured:** Installed and ready to use. (Ch. 28)

**constant:** An expression or value that stays the same. (Ch. 15)

**constraint parameters:** Dimensional constraints that control the size or location of block geometry numerically. (Ch. 26, 27)

**construction lines:** Lines commonly used to lay out a drawing. (Ch. 8)

**context-oriented help:** Help information for the active command. (Ch. 1)

**context-sensitive:** Specific to the active command or option. (Ch. 1)

**continued dimensioning:** The AutoCAD term for chain dimensioning. (Ch. 17)

**control code sequence:** A key sequence beginning with `%` that defines symbols in text. (Ch. 10)

**control vertices:** Points that are used to define the curve shape and change the curve design. Adding control points typically increases the complexity of the curve. (Ch. 14)

**conventional break:** Removal of a portion of a long, constant-shaped object to make the object fit better on the sheet. Also called `break`. (Ch. 17)

**conventional dimensioning:** Dimensioning without the use of geometric tolerancing. (Ch. 19)

**coordinate dimensioning:** A method of dimensioning angles in which dimensions locate the corner of the angle. (Ch. 17)

**coordinates:** Numerical values used to locate a point in the drawing. (Ch. 1)

**copy and paste:** A Windows function that allows you to copy an object from one location and paste it into another. (Ch. 13)

**counterbore:** A larger-diameter hole machined at one end of a smaller hole that provides a place for the screw head. (Ch. 18)

**countersink:** A cone-shaped recess at one end of a hole that provides a mating surface for a screw head of the same shape. (Ch. 18)

**cubic curve:** A very smooth curve created by the `PEDIT Spline` option with `SPLINETYPE` set at 6. (Ch. 14)

**current layer:** The active layer. Whatever you draw is placed on the current layer. (Ch. 5)

**curve fitting:** Converting a polyline into a series of smooth curves. (Ch. 14)

**cutting edge:** An object such as a line, arc, or text that defines the point (edge) at which the object you trim will be cut. (Ch. 11)
cutting-plane line: The line that cuts through the object to expose internal features. (Ch. 23)
cycle: Repeatedly select a series of stacked objects until the desired object is highlighted. (Ch. 3)
datum: Theoretically perfect surface, plane, point, or axis from which measurements can be taken. (Ch. 17, 18)
default: A value maintained by the computer until changed. (Ch. 1)
deferred perpendicular: A calculation of the perpendicular point that is delayed until you pick another point. (Ch. 7)
deferred tangency: A calculation of the point of tangency that is delayed until you pick both points. (Ch. 7)
definition points: The points used to specify the dimension location and the center point of the dimension text. Also called defpoints. (Ch. 7, 20)
demand loading: Loading only the portion of an xref file necessary to regenerate the host drawing. (Ch. 31)
dependent objects: Objects displayed in the host drawing, but defined in the xref drawing. (Ch. 31)
dependent symbols: Named objects in a drawing that have been inserted or referenced into another drawing. (Ch. 31)
destination object: When matching properties, the object that receives the properties of the source object. (Ch. 13)
destination points: Points to define the new location of objects during an ALIGN operation. (Ch. 12)
detach: Remove an xref from a host drawing. (Ch. 31)
deviation tolerance: The AutoCAD term for an unequal bilateral tolerance. (Ch. 19)
dialog box: A window-like item that contains various settings and information. (Ch. 1)
diameter: The distance across a circle measured through the center; usually represented on a drawing with the \( \varnothing \) symbol. (Ch. 4)
dimension: A description of the size, shape, or location of features on an object or structure. (Ch. 16)
dimensional constraint parameters: Parameters that form when you insert a dimensional constraint. (Ch. 22)
dimensional constraints: Measurements that numerically control the size or location of geometry. (Ch. 22)
dimensional input: An instinctive dynamic input point entry technique, similar to polar coordinate entry. (Ch. 3)
dimension style: A saved configuration of dimension appearance settings. (Ch. 16)
dimension style override: A temporary alteration of dimension style settings that does not actually modify the style. (Ch. 20)
dimension variables: System variables that store the values of dimension style settings. (Ch. 16)
DIN: Deutsches Institut Für Normung, established by the German Institute for Standardization. (Ch. 1)
direct dimensioning: A type of dimensioning applied to control the specific size or location of one or more specific features. (Ch. 17)
direct distance entry: Entering points by positioning the crosshairs to establish direction and typing a number to specify distance. (Ch. 3)
displacement: The direction and distance in which an object moves. (Ch. 11)
dock: Describes interface items set into position on an edge of the AutoCAD window (top, bottom, left, or right). (Ch. 1)
double-click: Quickly press the left mouse button twice. (Ch. 1)
drawing content: All of the objects, settings, and other components that make up a drawing. (Ch. 5)
drawing exchange file (DXF): A common file format recognized by other CADD systems. (Ch. 2)
drawing files: Files you use to create and store drawings. (Ch. 2)
drawing scale: The ratio between the actual size of objects in the drawing and the size at which the objects plot on a sheet of paper. (Ch. 28)
drawing sessions: Time spent working on a drawing project, including analyzing design parameters and using AutoCAD. (Ch. 1)
drawing standards file (DWS): A file used to check the standards of another file using AutoCAD standards-checking tools. (Ch. 2)
drawing template: A file that contains standard drawing settings and objects for use in new drawings. Also called template. (Ch. 1, 2)
drawing units: The standard linear and angular units and measurement precision. (Ch. 2)
drawing window: The largest area in the AutoCAD window, where drawing and modeling occurs. Also called graphics window. (Ch. 1)
drop-down list: A list of options that appears when you pick a button that contains a down arrow. (Ch. 1)
dynamic block: An adjustable block to which you can assign parameters, actions, and geometric constraints and constraint parameters. (Ch. 26)
dynamic columns: Columns calculated automatically by AutoCAD according to the amount of text and the specified height and width of the columns. (Ch. 9)
dynamic format: A dimensional constraint format used specifically for controlling the size or location of geometry. (Ch. 22)
dynamic input: Area near the crosshairs where you can type commands (command names), type or select command options, and view context-oriented information. (Ch. 1)

editing: A procedure used to modify an existing object. (Ch. 3)
ellipse: An oval shape that contains two centers of equal radius. (Ch. 4)
escape key: Keyboard key used to cancel a command or exit a dialog box. (Ch. 1)
example sheet set: An existing sheet set used as a template for developing a new sheet set. (Ch. 32)
exporting: Transferring electronic data from a database, such as a drawing file, to a different format used by another program. (Ch. 28)
extension path: A dashed line or arc that extends from an acquired point to the current location of the crosshairs. (Ch. 7)
external reference: A DWG, DWF, DWFx, raster image, DNG, PDF, or point cloud file incorporated into a drawing for reference only. Also called xref. (Ch. 31)
extrait: Gather content from the drawing file database to display in the drawing or in an external document. (Ch. 25)
exttracted: Temporarily removed from the drawing for editing purposes. (Ch. 31)

feature: Any physical portion of a part or object, such as a surface, hole, window, or door. (Ch. 16)
field: A text object that can display a specific property value, setting, or characteristic. (Ch. 10, 15, 32)
file properties: Values used to define a variety of file and design characteristics. (Ch. 2)
fillet: A rounded interior corner used to relieve stress or ease the contour of inside corners. (Ch. 4, 11, 18)
fit curve: A curve that passes through all of its fit points. (Ch. 14)
fit format: The arrangement of dimension text and arrowheads on a drawing. (Ch. 16)

fit points: Points through which a spline passes that determine the shape of the spline. (Ch. 14)

flip action: An action used to flip the entire block or selected objects within the block. (Ch. 26)

flip parameter: A parameter that mirrors selected objects within a block. (Ch. 26)

float: Describes interface items that appear within a frame and that you can resize or move. (Ch. 1)

floating viewport: A viewport added to a layout in paper space to display objects drawn in model space. (Ch. 28)

flyout: A set of related buttons that appears when you pick the arrow next to certain command buttons. (Ch. 1)

flythrough: A computer simulation that replicates flying through or around a 3D model. (Ch. 1)

font: The face design of a letter or number. (Ch. 9)

foreshortened: Describes a surface at an angle to the line of sight. Foreshortened surfaces appear shorter than their true size and shape. (Ch. 8)

formulas: Mathematical expressions that allow you to perform calculations within table cells. (Ch. 21)

full section: Section that shows half the object removed. (Ch. 23)

fully constrained: Describes a drawing in which objects have no freedom of movement. (Ch. 22)

function: An expression or value that asks for user input to get values to pass to the expression. (Ch. 15)

function keys: The keys labeled [F1] through [F12] along the top of the keyboard. (Ch. 1)

gap tolerance: The amount of gap allowed between segments of a boundary to be hatched. (Ch. 23)

GB: Chinese Guòbiāo. (Ch. 1)

genereal notes: Notes that apply to the entire drawing. (Ch. 16)

geographic data: Information added to a drawing to describe specific locations and directions on Earth. (Ch. 24, 31)

geometric constraint bars: Toolbars that allow you to view and remove geometric constraints. (Ch. 22)

geometric constraints: Geometric characteristics applied to restrict the size or location of geometry. (Ch. 22)

geometric dimensioning and tolerancing (GD&T): The dimensioning and tolerancing of individual features of a part where the permissible variations relate to characteristics of form, profile, orientation, runout, or the relationship between features. (Ch. 19)

global attribute editing: Editing or changing all insertions, or instances, of the same block in a single operation. (Ch. 25)

global layer settings: Layer settings applied to both model space and paper space. (Ch. 29)

global linetype scale: A linetype scale applied to every linetype in the current drawing. (Ch. 5)

GOST: Gosudarstvennyy, maintained by the Euro-Asian Council for Standardization. (Ch. 1)

grab bars: Two thin bars at the top or left edge of a docked or floating interface item that you can use to move the item. (Ch. 1)

gradient fill: A shading transition between the tones of one color or two separate colors. (Ch. 23)

graphical user interface (GUI): On-screen features that allow you to interact with software. (Ch. 1)
graphic pattern: A patterned arrangement of objects or symbols. (Ch. 23)

grid: A pattern of lines that appears on-screen for reference, analogous to graph paper. (Ch. 3)
grips: Small boxes that appear at strategic points on a selected object, allowing you to edit the object directly. (Ch. 3, 13)
grouped balloons: Balloons that share the same leader, which typically connects to the most obviously displayed component. (Ch. 20)
gutter: The space between columns of text. (Ch. 9)

half section: Section that shows one-quarter of the object removed. (Ch. 23)
hard copy: A physical drawing produced by a printer or plotter. (Ch. 6)
hatches: AutoCAD section line symbols and graphic patterns. Also called hatch patterns. (Ch. 23)

hexagon: A six-sided regular polygon. (Ch. 4)
host drawing: The drawing into which xrefs are incorporated. (Ch. 31)
hover: Pause the cursor over an item to display information or options. (Ch. 1)

hyperlinks: Links in a document that connect it to related information in other documents or on the Internet. (Ch. 33)

icon: Small graphic representing an application, file, or command. (Ch. 1)

implied intersection: The point at which objects would meet if they were extended. (Ch. 11)

included angle: The angle formed between the center, start point, and endpoint of an arc. (Ch. 4)

infer: Automatically detect and apply using logic. (Ch. 22)

inscribed polygon: A polygon drawn inside an imaginary circle so that the corners of the polygon touch the circle. (Ch. 4)

insertion base point: The point on a block that defines where the block is positioned during insertion. (Ch. 24)

interface: Items that allow you to input data to and receive outputs from a computer system. (Ch. 1)

island: A closed area inside a boundary. (Ch. 14, 23)

JIS: Japanese Industrial Standards. (Ch. 1)

justification point: The point from which text is justified according to the current justification option. (Ch. 10)

justify: Align the margins or edges of text. For example, left-justified text aligns along an imaginary left border. (Ch. 9)

key point: The point on a selected object that you use to manipulate the object. (Ch. 12)

landing: The AutoCAD term for a leader shoulder. (Ch. 18)

landscape: A horizontal paper orientation. (Ch. 6)

layer filters: Settings that screen out, or filter, layers you do not want to display in the list view pane of the Layer Properties Manager. (Ch. 5)

layer index: A list of objects ordered according to the layers to which they are assigned. (Ch. 31)
layer property overrides: Color, linetype, linewidth, transparency, and plot style properties applied to specific viewports in paper space. (Ch. 29)

layers: Components of the AutoCAD overlay system that allow you to separate objects into logical groups for formatting and display purposes. (Ch. 5)

layer state: A saved setting, or state, of layer properties for all layers in the drawing. (Ch. 5)

layout: An arrangement in paper space of sheet elements, typically including a border, title block, general notes, and a display of items drawn in model space. (Ch. 2, 28)

leader line: A line that connects a note or symbol to a specific feature or location on a drawing. (Ch. 18)

library path: The path AutoCAD searches by default to find an xref file, including the current folder and locations set in the Options dialog box. (Ch. 31)

limit dimensioning: Method in which the upper and lower limits are given, instead of the specified dimension and tolerance. (Ch. 19)

limits: The size of the virtual drawing area in model space. (Ch. 2) The largest and smallest numerical values the feature can have. (Ch. 19)

linear parameter: A parameter that creates a measurement reference between two points. (Ch. 26)

line conventions: Standards related to line thickness, type, and purpose. (Ch. 5)

line spacing: The vertical distance from the bottom of one line of text to the bottom of the next line. (Ch. 9)

linetype scale: The lengths of dashes and spaces in linetypes. (Ch. 5)

lineweight: The assigned width of lines for display and plotting. (Ch. 5)

list box: A framed area that contains a list of items or options from which to select. (Ch. 1)

location dimensions: Dimensions that locate features on an object without specifying the size of the feature. (Ch. 16)

lookup action: An action used to select a preset group of parameter values to carry out actions with stored values. (Ch. 27)

lookup parameter: A parameter that allows tabular properties to be used with existing parameter values. (Ch. 27)

lookup table: A table that groups the properties of parameters into custom-named lookup records. (Ch. 27)

major axis: The longer of the two axes in an ellipse. (Ch. 4)

margin: The extent of the printable area; objects drawn past the margin (dashed lines) do not print. (Ch. 28)

markers: Visual cues that appear at the snap point to confirm object snap mode and location. (Ch. 3, 7)

marking up: The process of reviewing a drawing and marking required changes. Also called redlining. (Ch. 18)

master drawing: A host drawing created by attaching several frequently used xrefs. (Ch. 31)

minor axis: The shorter of the two axes in an ellipse. (Ch. 4)

mirror line: The line of symmetry across which objects are mirrored. (Ch. 12)

model: A term that usually describes a 3D model, but in AutoCAD also refers to 2D drawing geometry, typically created at full size. (Ch. 2, 28)

model space: The environment in AutoCAD where the majority of drawing usually occurs, including the design and drafting of drawing views. (Ch. 2, 28)

model view: A drawing file or named model space view added to a layout to create a sheet view. (Ch. 33)
model viewports: A window or frame within which a drawing is visible in model space. Also called *tiled viewport.* (Ch. 6)

move action: An action used to move a block object independently of other objects in the same block. (Ch. 26)

multileader styles: Saved configurations for the appearance of leaders. (Ch. 18)

multiview drawing: A presentation of drawing views created through orthographic projection. (Ch. 8)

named objects: Blocks, dimension styles, groups, layers, linetypes, materials, multileader styles, plot styles, shapes, table styles, text styles, and visual styles that have specific names. (Ch. 24)

named plot style table: A file that contains plot style settings used to assign plot values to objects or layers. (Ch. 28)

named view: A specific drawing display saved for easy recall and future use, analogous to taking a picture. (Ch. 6)

navigation wheel: A steering wheel designed for use in a specific drawing setting or with a particular type of drawing. (Ch. 6)

nested xrefs: Xrefs contained within other xrefs. (Ch. 31)

nesting: Creating a block that includes other blocks. (Ch. 24)

non-associative array: An array of copied, or static, source objects that do not form a single adjustable array object. (Ch. 12)

non-associative dimension: A dimension linked to point locations, not an object; does not update when the object changes. (Ch. 20)

non-associative hatch pattern: A hatch that is independent of objects and updates when the boundary changes, but not when you make changes to objects. (Ch. 23)

non-breaking space: A symbol that you insert in place of a space to keep separate words together on one line. (Ch. 9)

non-uniform rational basis spline (NURBS, B-spline): The mathematics used by most surface modeling CADD systems to produce accurate curves and surfaces. (Ch. 4)

noun/verb selection: Performing tasks in AutoCAD by selecting the objects before activating a command. (Ch. 13)

nudging: Moving objects orthogonally by selecting the objects and using the arrow keys on the keyboard. (Ch. 13)

object snap: A tool that snaps to exact points on or in relation to existing objects, such as endpoints or midpoints. (Ch. 3, 7)

object snap override: A method of isolating a specific object snap mode while using a drawing or editing command. The selected object snap temporarily overrides the running object snap modes. (Ch. 7)

object snap tracking: A drawing aid that provides horizontal and vertical alignment paths for locating points after a point is acquired with object snap. (Ch. 3, 7)

offset section: Section that has a staggered cutting plane. (Ch. 23)

option: A choice associated with a command or an alternative function of a command. (Ch. 1)

order: In a spline, the degree of the spline polynomial + 1. (Ch. 14)

ordinate dimensioning: The AutoCAD term for rectangular coordinate dimensioning without dimension lines. (Ch. 18)

origin: The intersection point of the X, Y, and Z axes. The position of the default 2D origin is 0,0, where X = 0 and Y = 0. (Ch. 3)
ortho: From orthogonal, which means “at right angles.” (Ch. 3)

orthographic projection: Projecting object features onto an imaginary plane. (Ch. 8)

over-constrained: Describes a drawing that contains too many constraints. (Ch. 22)

overlay: An xref displayed in the host drawing, but not attached to it. (Ch. 31)

overlay system: A system of separating drawing components by layer. (Ch. 5)

override: A temporary change to the current style settings; the process of changing a current style temporarily. (Ch. 16)

page setup: A saved collection of settings required to create a finished plot of a drawing. (Ch. 28)

palette (modeless dialog box): Special type of window containing tool buttons and features common to dialog boxes. Palettes can remain open while other commands are active. (Ch. 1)

pan: Change the drawing display so that different portions of the drawing are visible on-screen. (Ch. 3, 6)

paper space: The environment in AutoCAD where you create layouts for plotting and display purposes. Also called layout space. (Ch. 2, 28)

paper text height: The plotted text height. (Ch. 9)

paragraph alignment: The alignment of multiline text inside the text boundary. (Ch. 9)

parallel: A geometric construction that specifies that objects such as lines remain parallel and will never intersect, no matter how long they become. (Ch. 22)

parallel alignment path: A dashed line parallel to an existing line that extends from the location of the crosshairs. (Ch. 7)

parameter filters: Settings that screen out, or filter, parameters you do not want to display in the list view pane of the Parameters Manager. (Ch. 22)

parameter grips: Special grips that allow you to change the parameters of a dynamic block. (Ch. 26)

parameter label: A label that indicates the purpose of a parameter. (Ch. 26)

parameters: Geometric characteristics and dimensions that control the size, shape, and position of drawing geometry. Also called constraints. (Ch. 22)

parametric drafting: A form of drafting in which parameters and constraints drive object size and location to produce drawings with features that adapt to changes made to other features. (Ch. 22)

parent: The dimension style from which a style override is formed. (Ch. 16)

parent xref: An xref that contains one or more other xrefs. (Ch. 31)

partial auxiliary view: An auxiliary view that shows a specific inclined surface of an object, rather than the entire object. (Ch. 8)

partial open: Describes opening a portion of a file by specifying only the views and layers you want to see. (Ch. 2)

path array: A pattern of objects drawn in reference to another object, or path. (Ch. 12)

perpendicular: A geometric construction that defines a 90° angle between objects such as lines. (Ch. 22)

pick: Press the left mouse button. Also called click. (Ch. 1)

pick box: A small box that replaces the crosshairs when the Select objects: prompt is active. (Ch. 22)

plot device: The printer, plotter, or alternative plotting system to which the drawing is sent. (Ch. 28)

plot spooler: A disk drive with memory that allows you to plot files. (Ch. 29)
plot stamp: Text added only to the hard copy that includes information such as the drawing name or the date and time the drawing was printed. (Ch. 29)

plot styles: Configurations of properties, including color, linetype, linewidth, line end treatment, and fill style, that are applied to objects for plotting purposes only. (Ch. 28)

plot style table: A configuration, saved as a separate file, that groups plot styles and provides complete control over plot style settings. (Ch. 28)

plus-minus dimensioning: A dimensioning system in which a variance from the dimension applies in both the positive (+) and negative (–) directions or in one direction only. (Ch. 19)

point entry: Locating a point, such as the endpoint of a line, on the AutoCAD coordinate system. (Ch. 3)

pointer input: The process of entering points using dynamic input. (Ch. 3)

point of tangency: The point shared by tangent objects. (Ch. 4)

point parameter: A parameter that defines an XY coordinate location in the drawing. (Ch. 26)

polar array: A circular pattern of objects. Also called circular array. (Ch. 12)

polar coordinates: Coordinates based on the distance from a fixed point at a given angle. (Ch. 3)

polar coordinate system: A coordinate system in which angular dimensions locate features from surfaces, centerlines, or center planes. (Ch. 16)

polar parameter: A parameter that includes a distance property and an angle property. (Ch. 26)

polar stretch action: An action used to change the size, shape, and rotation of block objects with a stretch operation. (Ch. 26)

polar tracking: A drawing aid that causes the drawing crosshairs to “snap” to predefined angle increments. (Ch. 3, 7)

polygon: A closed plane figure with at least three sides, such as a triangle or rectangle. (Ch. 3)

drawings. (Ch. 29)

polyline: A series of lines and arcs that constitute a single object. (Ch. 4)

polyline vertex: The point at which two polyline segments meet. (Ch. 14)

portrait: A vertical paper orientation. (Ch. 6)

prefix: A special note or application placed before the dimension value. (Ch. 16)

preview box: An area in a dialog box that shows the results of the options and settings you select. (Ch. 1)

projection plane: An imaginary projection plane parallel to the surface of an object. (Ch. 8)

publishing: Preparing a sequential set of multiple drawings for hard copy or electronic plotting of the set. (Ch. 29, 32)

purge: To remove unused items, such as block definitions and layers, from the drawing. (Ch. 5, 24)

quadrant: A point on the circumference at the horizontal or vertical quarter of a circle, arc, donut, or ellipse. (Ch. 4, 7)

quadratic curve: A curve created by the PEDIT Spline option with SPLINETYPE set at 5. The curve is tangent to the polyline segments between the intermediate control points. (Ch. 14)

radio button: A selection that activates a single item in a group of options. (Ch. 2)

radius: The distance from the center of a circle to its circumference; always one-half the diameter; usually represented on a drawing with the R symbol. (Ch. 4)
ray: A linear AutoCAD object that is infinite in one direction only; considered semi-infinite. (Ch. 8)

read-only: Describes a drawing file opened for viewing only. You can make changes to the drawing, but you cannot save changes without using the SAVEAS command. (Ch. 2, 32)

real block: A block originally drawn at a 1:1 scale and then inserted using 1 for both the X and Y scale factors. (Ch. 24)

realtime panning: A panning operation in which you can see the drawing move on-screen as you pan. (Ch. 6)

realtime zoom: A zoom that you view as it occurs. (Ch. 6)

rectangular array: A pattern made up of columns and rows of objects. (Ch. 12)

rectangular coordinate dimensioning without dimension lines: A type of dimensioning that includes only extension lines and text aligned with the extension lines. (Ch. 18)

rectangular coordinates: A set of numerical values that identify the location of a point on the X, Y, and Z axes of the Cartesian coordinate system. (Ch. 3)

rectangular coordinate system: A system for locating dimensions from surfaces, centerlines, or center planes using linear dimensions. (Ch. 16)

redrawing: A process that was once useful for refreshing the screen display without regenerating the drawing. (Ch. 6)

reference dimension: A dimension used for reference purposes only. Parentheses enclose reference dimensions to differentiate them from other dimensions. (Ch. 22)

reference editing: Editing reference drawings from within the host file. (Ch. 31)

reference file: An xref; a file referenced by the host drawing. (Ch. 31)

regenerating: Recalculating and redisplaying all objects on-screen to correspond to the information in the file database. (Ch. 6)

region: A closed 2D area that can have physical properties such as a centroid and product of inertia. (Ch. 14, 23)

regular polygon: A closed geometric figure with three or more equal sides and equal angles. (Ch. 4)

relative coordinates: Coordinates specified from, or relative to, the previous coordinate, rather than from the origin. (Ch. 3)

relative operators: In math, functions that determine the relationship between data items. (Ch. 13)

relative path: A path to a file defined according to the location of the file relative to the host drawing. (Ch. 31)

reload: Update an xref in the host drawing. (Ch. 31)

removed section: Standard section view, but removed from direct projection from the cutting plane. (Ch. 23)

removed view: A view removed from alignment with other views when drawing space is unavailable. (Ch. 8)

repetitive features: Multiple features having the same shape and size. (Ch. 18)

resource drawings: Drawing files that include named model space views referenced for use as sheet views. (Ch. 33)

revision cloud: A polyline of sequential arcs used to form a cloud shape around changes in a drawing. (Ch. 18)

revision history block: A block that provides space for the revision letter, a description of the change, the date, and approvals. (Ch. 25)

revolved section: Section that clarifies the contour of an object that has the same shape throughout its length. (Ch. 23)

ribbon panels: Palette divisions that group commands. Also called panels. (Ch. 1)

right-click: Press the right mouse button. (Ch. 1)

root point: The first point specified to create a construction line or ray. (Ch. 8)
rotate action: An action used to rotate objects within a block without affecting the other objects in the block. (Ch. 26)

rotation parameter: A parameter that allows objects in a block to rotate independently of the block. (Ch. 26)

round: A rounded exterior corner used to remove sharp edges or ease the contour of exterior corners. (Ch. 4, 11, 18)
rubberband line: A reference line that extends from the crosshairs in certain drawing commands after you make the first selection. (Ch. 3)

running object snaps: Object snap modes that run in the background during all drawing and editing procedures. (Ch. 3, 7)

scalable fonts: Fonts that can be displayed or printed at any size while retaining proportional letter thickness. (Ch. 9)
scale: (verb) The process of enlarging or reducing objects to fit properly on a sheet of paper. (noun) The ratio between the actual size of drawing objects and the size at which objects plot on a sheet of paper. (Ch. 30)
scale action: An action used to scale some of the objects within a block independently of the other objects. (Ch. 26)
scale factor: The reciprocal of the drawing scale. (Ch. 9)
schematic block: A block originally drawn at a 1:1 scale and then inserted using the drawing scale factor for both the X and Y scale values. (Ch. 24, 30)
scroll bar: A bar tipped with arrow buttons used to scroll through a list of options or information. (Ch. 1)
section lines: Lines that show where material is cut away. (Ch. 23)
section view (sectional view, section): A view that shows internal features as if a portion of the object is cut away. (Ch. 23)
selected grip: A grip that you have picked to perform an operation. (Ch. 13)
selection set: A group of one or more selected objects, typically created to perform an editing operation on the selected objects. (Ch. 3)
shade: A specific color mixed with black. (Ch. 23)
sheet: A printed drawing or electronic layout that displays project design requirements. (Ch. 2, 32)
sheet list table: An AutoCAD table that references a table style and selected items in a sheet set to create a list of sheets in the sheet set and related information. (Ch. 33)
sheet selections: Groups of subsets and sheets that are often used to publish the same group of sheets. (Ch. 33)
sheet set: A collection of drawing sheets for a project; the AutoCAD tool that aids project organization. (Ch. 32)
sheet set placeholder: A temporary value for a field that later references specific properties for values. (Ch. 33)
sheet size: Size of the paper used to lay out and plot drawings. (Ch. 2, 28)
sheet view: A layout or model view saved for use in a sheet set; allows you to add views to layouts and insert callout and view label blocks. (Ch. 33)
shortcut key: Single key or key combination used to issue a command or select an option. Also called keyboard shortcut. (Ch. 1)
shortcut menu: A general or context-sensitive menu available by right-clicking on interface items or objects. Also called cursor menu or right-click menu or pop-up menu. (Ch. 1)
shoulder: A short horizontal line usually added to the end of straight leader lines. (Ch. 18)
single limits: Limit dimensions used when the specified dimension cannot be any more than the maximum or less than the minimum given value. (Ch. 19)
size dimensions: Dimensions that provide the size of physical features. (Ch. 16)

slider: A movable bar that increases or decreases a value when you slide the bar. (Ch. 1)

snap grid (snap resolution, snap): An invisible grid that allows the crosshairs to move in, or snap to, specified increments during the drawing or editing process. (Ch. 3)

snapping: Picking a point near the intended position to have the crosshairs “snap” exactly to the specific point. (Ch. 3, 7)

soft copy: The electronic data file of a drawing. (Ch. 6)

solid model: The most complex 3D model—contains information about object edges, vertices, surfaces, and mass; solid models enclose a volume. (Ch. 1)

source object: When matching properties, the object with the properties you want to copy to other objects. (Ch. 13)

source points: Points to define the original position of an object during an ALIGN operation. (Ch. 12)

spatial index: A list of objects ordered according to their location in 3D space. (Ch. 31)

specific notes: Notes that relate to individual or specific features on the drawing. (Ch. 16)

specified dimension: The part of the dimension from which the limits are calculated. (Ch. 19)

spline: A curve that uses a series of control points and other mathematical principles to define the location and form of the curve. (Ch. 4)

spline curve: A curve that passes through the first and last fit points and is influenced by the other fit points. (Ch. 14)

spotface: A larger-diameter hole machined at one end of a smaller hole that provides a smooth, recessed surface for a washer; similar to a counterbore, but not as deep. (Ch. 18)

stacked objects: Objects that overlap in a drawing. When you pick with the mouse, the topmost object is selected by default. (Ch. 3)

standards: Guidelines that specify drawing requirements, appearance, techniques, operating procedures, and record-keeping methods. (Ch. 1)

static columns: Columns in which you divide the text into a specified number of columns. (Ch. 9)

status toggle buttons: Buttons that toggle drawing aids and commands on and off. (Ch. 1)

sticky panel: A ribbon panel moved out of a tab and made to float in the drawing window. (Ch. 1)

stretch action: An action used to change the size and shape of block objects with a stretch operation. (Ch. 26)

subregion: The displayed portion of a clipped xref. (Ch. 31)

subsets: Groups of similar layouts, such as those in the same discipline, sometimes based on folder hierarchy. (Ch. 32)

sub-units: Unit formats smaller than the primary unit format. For example, centimeters can be defined as a sub-unit of meters. (Ch. 16)

suffix: A special note or application placed after the dimension value. (Ch. 16)

surface model: A 3D model that contains information about object edges, vertices, and the outer boundaries of the object, known as surfaces; surface models have zero thickness, lack mass, and may not enclose a volume. (Ch. 1)

symbol library: A collection of related blocks, shapes, views, symbols, or other content. (Ch. 24)

symmetrical tolerance: The AutoCAD term for an equal bilateral tolerance. (Ch. 19)

system variable: A named definition that stores a value and configures AutoCAD to accomplish a specific task or exhibit a certain behavior. (Ch. 1)
tab: A small stub at the top or side of a page, window, dialog box, or palette that allows you to access other portions of the item. (Ch. 1)

table: An arrangement of rows and columns that organize data to make it easier to read. (Ch. 21)

table indicator: The grid of letters and numbers that identify individual cells in a table. (Ch. 21)

table style: A saved collection of table settings, including direction, text appearance, and margin spacing. (Ch. 21)

tabular dimensioning: A form of rectangular coordinate dimensioning without dimension lines in which dimensions appear in a table. (Ch. 18)
tangent: A line, circle, or arc that meets another circle or arc at only one point. (Ch. 4)
text: Lettering on a CADD drawing. (Ch. 9)
text boundary: An imaginary box that sets the location and width for multiline text. (Ch. 9)
text box: A box in which you type a name, number, or single line of information. (Ch. 1)
text editor: The area of the multiline or single-line text system where you type text. (Ch. 9)
text height: The specified height of text, which may be different from the plotting size for text scaled manually. (Ch. 9)
text style: A saved collection of settings for text height, width, oblique angle (slant), and other text effects. (Ch. 9)
tint: A specific color mixed with white. (Ch. 23)
tolerance: The total amount by which a specific dimension is permitted to vary. (Ch. 19)
tolerance buildup: Accumulation that occurs when the tolerance of each individual dimension builds on the next. (Ch. 17)
tolerance stack: Text stacked vertically without a fraction bar. (Ch. 9)
toolbars: Interface items that contain tool buttons or drop-down lists. (Ch. 1)
tool buttons: Interface items used to start commands. (Ch. 1)
tool palette: A palette that contains tabs to help organize commands and other features. (Ch. 23)
tooltip: A pop-up that provides information about the item over which you hover. (Ch. 1)
tracking vectors: Temporary lines that display at specific angles, 0°, 90°, 180°, and 270° by default. (Ch. 7)
transparently: When referring to command access, describes temporarily interrupting the active command to use a different command. (Ch. 6)

under-constrained: Describes a drawing that includes constraints, but not enough to size and locate all geometry. (Ch. 22)

unidirectional dimensioning: A dimensioning system in which all dimension values are displayed horizontally on the drawing. (Ch. 16)

unilateral tolerance: A tolerance style that permits a variation in only one direction from the specified dimension. (Ch. 19)

unit block: A 1D, 2D, or 3D unit block drawn to fit in a 1-unit, 1-unit-square, or 1-unit-cubed area so that it can be scaled easily. (Ch. 24)

unload: Suppress the display of an xref without removing the xref from the host drawing. (Ch. 31)
unselected grips: Grips that you have not yet picked to perform an operation. (Ch. 13)

update: The AutoCAD procedure for changing text in a field to reflect the current value. (Ch. 10)

user coordinate system (UCS): A temporary override of the WCS in which the origin (0,0,0) is moved to a location specified by the user. (Ch. 18)

user parameters: Additional parameters you define. (Ch. 22)

value set: A set of allowed values for a parameter. (Ch. 26)

variable: A text item that represents another value and is available for future reference. (Ch. 15)

verb/noun selection: Performing tasks in AutoCAD by activating a command before selecting objects. (Ch. 13)

vertex: The point at which the two lines that form an angle meet. (Ch. 17)

view: 2D representation of an object. (Ch. 32)

view label block: A block that uses attributes containing fields that link the view name, number, and scale to drawing (sheet) views. (Ch. 33)

viewing-plane line: A thick dashed or phantom line identifying the viewing direction of a related view. (Ch. 8)

view tools: AutoCAD display commands, options, and settings. (Ch. 6)

visibility parameter: A parameter that allows you to assign multiple views to objects within a block. (Ch. 27)

visibility states: Views created by selecting block objects to display or hide. (Ch. 27)

walkthrough: A computer simulation that replicates walking through or around a 3D model. (Ch. 1)

wblock: A block definition saved as a separate drawing file. (Ch. 24)

wedges: The parts of a navigation wheel that contain navigation commands. (Ch. 6)

wireframe model: The most basic 3D model—contains only information about object edges and the points where edges intersect, known as vertices; describes the appearance of the model as if it were constructed from wires. (Ch. 1)

working set: Nested objects selected for editing during a REFCEDIT operation. (Ch. 31)

workspace: A preset work environment containing specific interface items. (Ch. 1)

world coordinate system (WCS): The AutoCAD rectangular coordinate system. In 2D drafting, the WCS contains four quadrants, separated by the X and Y axes. (Ch. 18)

xline: A construction line in AutoCAD that is infinite in both directions; helpful for creating accurate geometry and multiview drawings. (Ch. 8)

XY parameter: A parameter that specifies distance properties in the X and Y directions. (Ch. 26)

zones: A system of letters and numbers used on large drawings to help direct the attention of the person reading the print to a location on the drawing. (Ch. 25)

zoom: Make objects appear bigger (zoom in) or smaller (zoom out) on the screen without affecting their actual size. (Ch. 3, 6)
**zoom in:** Change the display area to show a smaller part of the drawing at a higher magnification. (Ch. 3, 6)

**zoom out:** Change the display area to show a larger part of the drawing at a lower magnification. (Ch. 3, 6)