**1D unit block:** A 1-unit, one-dimensional object, such as a straight line segment, saved as a block. (Ch. 25)

**2D unit block:** A 2D object that fits into a 1-unit × 1-unit square, saved as a block. (Ch. 25)

**3D unit block:** A 3D object that fits into a 1-unit × 1-unit × 1-unit cube, saved as a block. (Ch. 25)

A

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

**absolute path:** A path to a file defined by the file’s location on the computer system. (Supplement 11A, Ch. 32)

**absolute value:** In property settings, a value set directly instead of being referenced by layer or a block. The current layer settings are ignored when an absolute value is set. (Ch. 5) In property settings, a value set directly instead of being referenced by layer or a block. An absolute value ignores the current layer settings. (Ch. 15)

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

**action:** A definition that controls how dynamic block parameters behave. (Ch. 27)

**action bars:** Toolbars that allow you to view, remove, and adjust actions. (Ch. 27)

**action parameter:** In dynamic blocks, a parameter for block construction that controls block characteristics such as the positions, distances, and angles of dynamic block geometry. Also called a parameter. (Ch. 27)

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

**aligned dimensioning:** A dimensioning system in which the dimension values align with the dimension lines. (Ch. 17)

**aligned sections:** Sections 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. 27)

**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. 17)

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. 18)

annotation: Letters, numbers, words, and notes used to describe information on a drawing. (Ch. 9, 19, 31)

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

annotation scale: The drawing scale AutoCAD uses to calculate the height of annotative text. (Ch. 9) The scale AutoCAD uses to calculate the scale factor applied to annotative objects. (Ch. 31)

annotative object representation: Display of an annotative object at an annotation scale that the object supports. (Ch. 31)

annotative objects: AutoCAD objects that can be made to adapt automatically to the current drawing scale. (Ch. 31)

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

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

archiving: Gathering and storing all of the electronic drawing files related to a project. (Ch. 33)

array: Multiple copies of an object arranged in a pattern. (Ch. 14)

array action: An action used to array objects within the block based on preset specifications. (Ch. 27)

arrowless dimensioning: A type of dimensioning that includes only extension lines and text aligned with the extension lines. Also called rectangular coordinate dimensioning without dimension lines. (Ch. 19)

associative dimension: Dimension in which all elements link to, or associate with, the dimensioned object; updates when the associated object changes. (Ch. 17, 21)

associative hatch pattern: Pattern that updates automatically when the associated objects are edited. (Ch. 23)
attachment: An xref linked with or referenced into the current drawing. (Ch. 32)

attributes: Text-based data assigned to a specific object. Attributes turn a drawing into a graphical database. (Ch. 26)

auto-fill: A table function that automatically fills selected cells based on the contents of a specified cell. (Ch. 11)

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

automatic windowing: 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 a foreshortened surface at its true size and shape. (Ch. 8)

axonometric drawings: Drawings in which a 3D object is rotated for display on a 2D drawing sheet so all three dimensions can be seen. (Ch. 24)

B

background: The first multiline you select to create a closed cross intersection. (Supp. 4A)

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 part and correlate it to a parts list or bill of materials. Balloons connect to a part with a leader line. (Ch. 21)

base dimension: The dimension line that remains in the same location, with which other dimension lines are spaced or aligned. (Ch. 21)

baseline dimensioning: The AutoCAD term for datum dimensioning. (Ch. 18)

base point: The initial reference point AutoCAD uses when stretching, moving, copying, and scaling objects. (Ch. 12)

base point parameter: A parameter that defines an alternate base point for a block. (Ch. 27)

basic dimension: A theoretically perfect dimension used to describe the exact size, profile, orientation, and location of a feature. (Ch. 17, Supplement 20A) A theoretically perfect dimension used in geometric dimensioning and tolerancing. (Ch. 20)
**big fonts**: Asian and other large-format fonts that have characters not present in normal font files. (Ch. 9)

**bilateral tolerance**: A tolerance style that permits variance in both the positive and negative directions from the specified dimension. (Ch. 20)

**binding**: Converting an xref to a permanently inserted block in the host drawing. (Ch. 32)

**block**: A symbol or shape that was previously created and saved for future reuse. (Ch. 8, 19, 25)

**block definition**: Information about a block that is stored within the drawing file. (Ch. 25)

**block insertion tools**: Blocks located on a tool palette. (Ch. 25)

**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. 28)

**block reference**: A specific instance of a block inserted into a drawing. (Ch. 25)

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

**boundary edge**: The edge to which objects such as lines, arcs, and polylines are extended. (Ch. 12)

**boundary set**: The part of the drawing AutoCAD evaluates to define a boundary. (Ch. 13)

**break**: Removal of a portion of a long, constant-shaped object from the drawing to make the object fit better on the drawing sheet. Also called a *conventional break*. (Ch. 18)

**break lines**: Lines that show where a portion of an object has been removed for clarity or convenience. (Ch. 5)

**broken-out sections**: Sections that show only a small portion of the object removed. (Ch. 23)

**button**: A “hot spot” on the screen that can be picked to access an application, tool, or option. (Ch. 1)
C

CAD: Computer-aided design and drafting. (Ch. 1)
callout block: A block inserted to indicate a reference to another sheet. (Ch. 33)
caps: Short lines connecting the elements of a multilime at the start point and endpoint. (Supplement. 4A)
Cartesian coordinate system: A system in which points are located in space according to distances from three intersecting axes. Also called rectangular coordinate system. (Ch. 3)
cascading menu: A menu that contains options related to the chosen menu item. (Ch. 1)
centerlines: Thin lines made up of alternating long and short dashes that locate the centers of circles and arcs and show the axis of cylindrical or symmetrical shapes. (Ch. 5)
chain action: An action that triggers another action when a parameter is modified. (Ch. 27)
chain dimensioning: A method of dimensioning in which dimensions are placed in a line from one feature to the next. Also called point-to-point dimensioning. (Ch. 18)
chain lines: Thick lines that indicate special features or unique treatment for a surface. (Ch. 5)
chamfer: In mechanical drafting, a small angled surface used to relieve a sharp corner. (Ch. 4, 12, 19)
chart dimensioning: A type of dimensioning in which the variable dimensions are shown with letters that correlate to a chart where the possible dimensions are given. (Ch. 19)
check box: A selectable box that turns an item on (when checked) or off (when unchecked). (Ch. 1)
child: A style override. (Ch. 17)
chord length: The linear distance between two points on a circle or arc. (Ch. 4)
circle: A closed curve with a constant radius around a center point; size is usually dimensioned according to the diameter. (Ch. 4)
circumscribed polygon: A polygon that is drawn outside of an imaginary circle so
that the sides of the polygon are tangent to the circle. (Ch. 4)

circular reference error: An error that occurs when a block definition references itself. (Ch. 25)

click: Use the left mouse button to select. Also called pick. (Ch. 1)

coaXial positional tolerance: A positional tolerance controlling the axes of coaxial features (features having a common axis). (Supplement 20A)

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. 29)

command: An instruction issued to the computer to complete a specific task. For example, the LINE tool is used to draw lines. Also called a tool. (Ch. 1)

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

command line: Area at the bottom of the screen where commands (tool names) and options may be typed. (Ch. 1)

composite frame: A double feature control frame in which one geometric characteristic symbol is displayed in a single compartment. (Supplement 20A)

composite positional tolerance: A geometric tolerance that allows the location of a pattern of features to vary more than the tolerance of the individual features in the pattern. (Supplement 20A)

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

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

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

configured: Installed and ready to use. (Ch. 29)

constant: Expression or value that stays the same. (Ch. 16)

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

constraint parameters: Dimensional constraints available for block construction to control the size or location of block geometry numerically. (Ch. 27, 28)
**constraints:** Geometric characteristics and dimensions that control the size, shape, and position of drawing geometry. Also called *parameters*. (Ch. 22)

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

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

**context-sensitive menu options:** Options specific to the tool currently in use. (Ch. 1)

**continued dimensioning:** The AutoCAD term for chain dimensioning. (Ch. 18)

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

**conventional break:** Removal of a portion of a long, constant-shaped object from the drawing to make the object fit better on the drawing sheet. Also called a *break*. (Ch. 18)

**coordinate dimensioning:** A method of dimensioning angles in which dimensions locate the corner of the angle. (Ch. 18)

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

**copy and paste:** A Windows function that allows an object to be copied from one location and pasted into another. (Ch. 15)

**counterbore:** A larger-diameter hole machined at one end of a smaller hole that provides a place for the screw head. (Ch. 19)

**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. 19)

**cubic curve:** A very smooth curve created by the PEDIT Spline option with SPLINETYPE set at 6. (Ch. 13)

**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. 13)

**cutting:** The process of deleting a portion of a multiline element or an entire multiline. (Supp. 4A)

**cutting edge:** An object such as a line, an arc, or text that defines the point (edge) at which the object you trim will be cut. (Ch. 12)
cutting-plane lines: Thick, phantom or dashed lines that identify the location and viewing direction of a section view. (Ch. 5) 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 highlights. (Ch. 3)

D

data extraction: The process of gathering data, often in the form of drawing content, for a specific use or purpose. (Supplement 11B)

datum: Theoretically perfect surface, plane, point, or axis from which measurements can be taken. (Ch. 18, Supplement 20A) The 0 dimension, baseline, or common point from which all measurements are made while dimensioning. (Ch. 19)

datum dimensioning: A method of dimensioning in which several dimensions originate from a common surface, centerline, or center plane. (Ch. 18)

datum feature symbol: Symbols used to identify datums in a feature control frame. (Supplement 20A)

datum target: A specific point, line, or area used to establish a datum. (Supplement 20A)

default: A value maintained by the computer until changed. (Ch. 1)

deferred perpendicular: A condition in which calculation of the perpendicular point is delayed until another point is picked. (Ch. 7)

deferred tangency: A condition in which calculation of the point of tangency is delayed until both points are picked. (Ch. 7)

definition points: The points you pick or coordinates you enter to specify multilines. (Supp. 4A) The points used to specify the dimension location and the center point of the dimension text. Also called defpoints. (Ch. 21)

defpoints: The points used to specify the dimension location and the center point of the dimension text. Also called definition points. (Ch. 21)

demand loading: Loading only the part of an xref file necessary to regenerate the host drawing. (Ch. 32)

dependent objects: Objects displayed in the host drawing, but defined in the xref drawing. (Ch. 32)
dependent symbols: Named objects in a drawing that has been inserted or referenced into another drawing. (Ch. 25)

destination object: When matching properties, the object that receives the properties of the source object. (Ch. 15)

destination points: Points to define the location of the reference line of the object’s new location in an **ALIGN** operation. (Ch. 14)

detach: Remove an xref from a host drawing. (Ch. 32)

development tolerance: AutoCAD’s term for an unequal bilateral tolerance. (Ch. 20)

dialog box: A window-like part of the user interface that contains various kinds of information and settings. (Ch. )

dimension: A description of the size, shape, or location of features on an object or structure. (Ch. 17)

dimensional constraint parameters: Parameters added when you insert a dimensional constraint. (Ch. 22)

dimensional constraints: Measurements that numerically control the size or location of geometry. (Ch. 22)

dimensional input: A method of entering points that is similar to polar coordinate entry, but uses dynamic input. (Ch. 3)

dimension lines: Thin, solid lines placed between extension lines to show the distance being measured. (Ch. 5)

dimension style: A saved configuration of dimension appearance settings. (Ch. 17)

dimension style override: A temporary alteration of settings for the dimension style that does not actually modify the style. (Ch. 21)

dimension variables: System variables that store the values of dimension style settings. (Ch. 17)

dimetric: An axonometric drawing in which two different scales are used to measure the three axes. (Ch. 24)

DIN: Deutsches Institut Für Normung. —A standard established by the German Institute for Standardization. (Ch. 1)

direct distance entry: Entering points by dragging the crosshairs for direction and typing a number for distance. (Ch. 3)
**displacement**: The direction and distance in which an object moves. (Ch. 12)

**docked**: Describes interface items that are locked 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 to select. (Ch. 1)

**drawing content**: All of the objects, settings, and other components that make up a drawing. (Ch. 2)

**drawing exchange file (DXF)**: A file format often used by other CADD systems. (Ch. 2)

**drawing files**: Files that contain the actual drawing geometry and information. (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. 29)

**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 a *template*. (Ch. 2)

**drawing units**: The standard units for linear and angular measurements and the precision of the measurements. (Ch. 2)

**drawing window**: The largest area in the AutoCAD window, where drawing and modeling occurs. Also called the *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)

**dual dimensioning units**: Dimensions in which measurements in one system, such as inches, are followed by bracketed measurements in another system, such as millimeters. Also called *alternate units*. (Ch. 17)

**dynamic block**: An editable block that can be assigned parameters, actions, and/or geometric constraints and constraint parameters. (Ch. 27)

**dynamic columns**: Columns calculated automatically by AutoCAD according to the amount of text and the height and width of the columns. (Ch. 9)

**dynamic format**: A dimensional constraint format specifically for controlling the size or location of geometry. (Ch. 22)

**dynamic input**: Area near the crosshairs where commands may be typed and context-oriented information is provided. (Ch. 1)
E

editing: Procedure used to modify an existing object. (Ch. 3)

elements: The individual lines that make up a multiline. (Supp. 4A)

ellipse: An oval shape that contains two centers of equal radius. (Ch. 4)

ergonomics: The science of adapting the work environment to suit the needs of the worker. (Ch. 1)

escape key: Keyboard key used to cancel a tool or exit a dialog box. (Ch. 1)

extension lines: Thin, solid lines that extend from the object being measured to the dimension line to show the extent of the dimension. (Ch. 5)

extension path: Dashed line or arc that extends from the acquired point to the current location of the crosshairs. (Ch. 7)

external reference: A DWG, DWF, raster image, DNG, or PDF file incorporated into a drawing for reference only. Also called xref. (Ch. 32)

extract: Gathering content from the drawing file database to display in the drawing or in an external document. (Ch. 26) Temporarily remove from the drawing for editing purposes. (Ch. 32)

F

feature: Any physical portion of a part or object, such as a surface, hole, window, or door. (Ch. 17)

feature control frame: The rectangular frame that contains the geometric characteristic, geometric tolerance, material condition, and datum reference (if any) for an individual feature. (Supplement 20A)

Federal Supply Code for Manufacturers (FSCM): A five-digit numerical code identifier applicable to any organization that produces items used by the federal government. It also applies to government activities that are responsible for the development of certain specifications, drawings, or standards that control the design of items. (Ch. 26)

field: A special type of text object that can display a specific property value, setting, or characteristic. (Ch. 10) Text object that displays a property, setting, or value for an object, drawing, or computer system. (Ch. 16) Special text objects that display values that update automatically. (Ch. 33)
fillet: A rounded interior corner. (Ch. 4) A rounded interior corner used to relieve stress or ease the contour of inside corners. (Ch. 12) Small inside arcs designed to strengthen inside corners. (Ch. 19)

fit curve: A curve that passes through all of its control points. (Ch. 13)

fit format: The arrangement of dimension text and arrowheads on a drawing. (Ch. 17)

fit points: Spline control points. (Ch. 13)

flatness: A geometric tolerance between two parallel planes within which the surface must lie. (Supplement 20A)

flip action: An action used to flip the entire block. (Ch. 27)

flip parameter: A parameter that mirrors selected objects within a block. (Ch. 27)

float: Describes interface items that can be freely resized or moved about the screen. (Ch. 1)

floating viewports: Viewports created in paper space. (Ch. 6) A viewport added to a layout in paper space to display objects drawn in model space. (Ch. 29)

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

font: A letter face design. (Ch. 9)

Foreground: The second multiline you select to create a closed cross intersection. (Supplement 4A)

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

foreshortening: Property of a drawing in which objects appear to recede in the distance. (Ch. 24)

formulas: Mathematical expressions that allow you to perform calculations within table cells. (Ch. 11)

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

full sections: Sections in which half the object is removed. (Ch. 23)

function: Expression or value that asks for user input to get values that can be passed to the expression. (Ch. 16)

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

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

Gb: Guo Biao (Chinese) standard. (Ch. 1)

general notes: Notes that apply to the entire drawing. (Ch. 17)

geographic data: Information added to a drawing to describe specific locations and directions on Earth. (Ch. 25, 32)

geometric characteristic symbols: Symbols that indicate specific controls related to the form of an object, orientation of features, outlines of features, relationship of features to an axis, or location of features. (Supplement 20A)

geometric constraints: Geometric characteristics applied to restrict the size or location of geometry; often associates objects. (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. 20)

geometric tolerance: A tolerance used to control the form, profile, orientation, runout, and location of features on an object. (Supplement 20A)

geometric tolerancing: A general term that refers to tolerances used to control the form, profile, orientation, runout, and location of features on an object. (Supplement 20A)

global attribute editing: Editing or changing all insertions, or instances, of the same block in a single operation. (Ch. 26)

global layer settings: Layer settings applied to both model space and paper space. (Ch. 30)

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

grab bars: Two thin bars at the top or left edge of a docked or floating feature; used to move the feature. (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 users to interact with a software program. (Ch. 1)
graphic pattern: A patterned arrangement of objects or symbols. (Ch. 23)

graphics window: The largest area in the AutoCAD window, where drawing and modeling occurs. Also called the drawing window. (Ch. 1)

grid: A pattern of dots that appears on-screen to aid in the drawing process. (Ch. 3)

grips: Small boxes that appear at strategic points on an object, allowing you to edit the object directly. (Ch. 11) Small boxes that appear at strategic points on an object when you select it, allowing you to the edit object. (Ch. 15)

group: A named selection set. (Supplement 15C)

grouped balloons: Balloons that share the same leader, which typically connects to the most obviously displayed component. (Ch. 21)

group filter: A filter created by adding layers to the filter definition. (Ch. 5)

gutter: The space between columns of text. (Ch. 9)

H

half sections: Sections that show one-quarter of the object removed. (Ch. 23)

hard copy: A physical drawing produced by a printer or plotter. (Ch. 5)

hatch patterns: AutoCAD section line symbols and graphic patterns. (Ch. 23)

hexagon: Six-sided regular polygons. (Ch. 4)

hidden lines: Thin, dashed lines used to represent features that are hidden in the current view. (Ch. 5)

host drawing: The drawing into which xrefs are incorporated. Also called master drawing. (Ch. 32)

hover: Pause the cursor over an item to display information or options. (Ch. 1)

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

I

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

implied intersection: The point at which objects would meet if they were extended. (Ch. 12)
implied windowing: Selection method that allows you to select multiple objects at one time without entering a selection option. Also called *automatic windowing*. (Ch. 3)

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

insertion base point: The point on a block that defines where the block is positioned during insertion. (Ch. 25)

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

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

island: A closed area inside a boundary. (Ch. 13) Boundary inside another boundary. (Ch. 23)

ISO: International Organization for Standardization. (Ch. 1)

isometric drawings: Drawings in which the three axes are equally spaced at 120°. (Ch. 24)

isometric line: Any line that is parallel to an axis in an isometric drawing. (Ch. 24)

isoplanes: The three isometric positions or planes. (Ch. 24)

J

JIS: Japanese Industry Standard. (Ch. 1)

joints (miters): Lines connecting the vertices of adjacent multiline elements. (Supplement 4A)

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

K

keyboard shortcut: Single key or key combination used to quickly issue a command or select an option. Also called *shortcut key* (Ch. 1)

L

landing: The AutoCAD term for a leader shoulder. (Ch. 19)

landscape: A horizontal paper orientation. (Ch. 5)
**layer filters:** Filters 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 on which they reside. (Ch. 32)

**layer property overrides:** Color, linetype, linewidth, and plot style properties applied to specific viewports in paper space. (Ch. 30)

**layers:** Components of AutoCAD’s overlay system that allow users 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 items drawn in model space. (Ch. 2) A specific arrangement of views or drawings for plotting or printing on paper. (Ch. 29)

**layout space:** The environment in AutoCAD where layouts are created for plotting and display purposes. Also called paper space. (Ch. 2)

**leader lines:** Thin, solid lines used to connect a specific note to a feature on a drawing. (Ch. 5, 19)

**least material condition (LMC):** The minimum allowable produced size. (Supplement 20A)

**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. 32)

**limits:** The size of the virtual drawing area in model space. (Ch. 2) In tolerancing, the largest and smallest numerical values the feature can have. (Ch. 20)

**limits dimensioning:** Method in which the upper and lower limits are given, instead of the specified dimension and tolerance. (Ch. 20)

**linear parameter:** A parameter that creates a measurement reference between two points. (Ch. 27)

**line conventions:** Standards related to line thickness and type. (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)

**linewidth:** The assigned width of lines for display and plotting. (Ch. 5)
**list box:** A boxed area that contains a list of items or options from which to select. (Ch. 1)

**location dimensions:** Dimensions used to locate features on an object without specifying the size of the feature. (Ch. 17)

**lookup action:** An action used to select a preset group of parameter values to carry out actions with stored values. (Ch. 28)

**lookup parameter:** A parameter that allows tabular properties to be used with existing parameter values. (Ch. 28)

**lookup table:** A table that groups the properties of parameters into custom-named lookup records. (Ch. 28)

**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. 29)

**markers:** Visual cues to confirm object snap points. (Ch. 7)

**marking up:** The process of reviewing a drawing and marking required changes. Also called *redlining*. (Ch. 19)

**master drawing:** The drawing into which xrefs are incorporated. Also called *host drawing*. (Ch. 32)

**material condition symbols:** Symbols used to modify the geometric tolerance in relation to the produced size or location of the feature. (Supplement 20A)

**maximum material condition (MMC):** The maximum allowable produced size. (Supplement 20A)

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

**mirror line:** The line of symmetry across which objects mirror. (Ch. 14)

**modeless dialog box:** Special type of window containing tool buttons and other features found in dialog boxes. Palettes can remain open while other tools are in use. Also called a *palette*. (Ch. 1)

**model:** Any drawing composed of various objects, such as lines, circles, and text, and usually created at full size. However, this term is usually reserved for 3D drawings. (Ch. 2, 29)
**model space:** The environment in AutoCAD where drawings and designs are created. (Ch. 2, 29)

**modifying symbol:** A symbol used to establish the relationship between the size of a feature and its given dimensional and geometric tolerance. (Supplement 20A)

**move action:** An action used to move a block object independently of other objects in the same block. (Ch. 27)

**multileader styles:** Saved configurations for the appearance of leaders. (Ch. 19)

**multiline:** A single object consisting of up to 16 parallel line elements. (Supplement 4A)

**multiview drawings:** Presentation of drawing views created through orthographic projection. (Ch. 8)

**named objects:** Blocks, dimension styles, layers, linetypes, materials, multileader styles, plot styles, shapes, table styles, text styles, and visual styles that have specific names. (Ch. 25)

**named plot style table:** A file that contains plot style settings used to assign plot values to objects or layers. (Ch. 29)

**nested group:** A group that exists within another group. (Supplement 15C)

**nested xrefs:** Xrefs contained within other xrefs. (Ch. 32)

**nesting:** Creating a block that includes other blocks. (Ch. 25)

**nonassociative dimension:** A dimension linked to point locations, not an object; does not update when the object changes. (Ch. 21)

**nonassociative hatch pattern:** A pattern that is independent of objects; it updates when the boundary changes, but not when changes are made to objects. (Ch. 23)

**nonisometric lines:** Lines that are not parallel to the axes in an isometric drawing. (Ch. 24)

**nonuniform rational B-spline (NURBS) curve:** A true (mathematically correct) spline. (Ch. 4)

**noun/verb selection:** Performing tasks in AutoCAD by selecting the objects before entering a tool. (Ch. 15)
object lines: Thick, solid lines that show the contour or outline of objects on a drawing. Also called visible lines or outline lines. (Ch. 5)

object linking: Referencing data from one application to use in another. (Supplement 11A)

object snap: A tool that snaps to exact points, such as endpoints or midpoints, on or in relation to existing objects. (Ch. 4, 7)

object snap override: A method of isolating a specific object snap mode while a tool is in use. The selected object snap temporarily overrides the running object snap modes. (Ch. 7)

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

oblique drawing: A drawing that shows objects with one or more parallel faces having true shape and size. (Ch. 24)

offset sections: Sections that have a staggered cutting plane. (Ch. 23)

OLE client: The destination application in an object linking operation. (Supplement 11A)

OLE server: The source application in an object linking operation. (Supplement 11A)

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

order: In a spline, the degree of the spline polynomial + 1. (Ch. 13)

ordinate dimensioning: The AutoCAD term for rectangular coordinate dimensioning without dimension lines. (Ch. 19)

origin: The intersection point of the X, Y, and Z axes. (Ch. 3)

ortho: From orthogonal, which means “at right angles.” (Ch. 3)

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

outline lines: Thick, solid lines that show the contour or outline of objects on a drawing. Also called visible lines or object lines. (Ch. 5)

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

overlay: An xref displayed as an xref without being attached to the current drawing. (Ch. 32)

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. 17)

P

page setup: A saved collection of settings required to create a finished plot of a drawing. (Ch. 29)
palette: Special type of window containing tool buttons and other features found in dialog boxes. Palettes can remain open while other tools are in use. Also called modeless dialog box. (Ch. 1)

panels: Palette divisions that group tools. Also called ribbon panels. (Ch. 1)
panning: Changing the drawing display so that different portions of the drawing are visible on-screen. (Ch. 6)
paper space: The environment in AutoCAD where layouts are created for plotting and display purposes. Also called layout space. (Ch. 2, 29)
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 will never intersect, no matter how long they become. (Ch. 22)
parallel alignment path: A dashed line, parallel to the existing line, that extends from the location of the crosshairs. (Ch. 7)
parameter grips: Special grips that allow you to change the parameters of a dynamic block. (Ch. 27)
parameter label: A label that indicates the purpose of a parameter. (Ch. 27)
parameters: Geometric characteristics and dimensions that control the size, shape, and position of drawing geometry. Also called constraints. (Ch. 22) In dynamic blocks, specifications for block construction that control block characteristics such as the positions, distances, and angles of dynamic block geometry. Also called action parameters. (Ch. 27)

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 dimension**: The dimension style from which a style override is created. (Ch. 17)

**parent xref**: An xref that contains one or more other xrefs. (Ch. 32)

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

**partial open**: Opening a portion of a file by specifying only the views and layers you need to see. (Ch. 2)

**perpendicular**: A geometric construction that defines a $90^\circ$ angle between objects such as lines. (Ch. 22)

**perspective drawing**: The most realistic form of pictorial drawing, in which receding objects meet at one or more vanishing points on the horizon. (Ch. 24)

**phantom lines**: Thin lines that identify repetitive details, show alternate positions of moving parts, and locate adjacent positions of related parts. (Ch. 5)

**pick**: Use the left mouse button to select. Also called *click*. (Ch. 1)

**pick box**: Small box that replaces the crosshairs when objects are to be selected. (Ch. 3)

**pictorial**: A 2D drawing that shows height, width, and depth; similar to a picture. (Ch. 24)

**placeholder**: A temporary value for a field. (Ch. 33)

**plot device**: The printer, plotter, or alternative plotting system to which the drawing is sent. (Ch. 29)

**plot spooler**: A disk drive with memory that allows you to plot files. (Ch. 30)

**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. 30)

**plot styles**: Properties, including color, linetype, linewidth, line end treatment, and fill style, that are applied to objects for plotting purposes only. (Ch. 29)

**plot style table**: A configuration, saved as a separate file, that groups plot styles and provides complete control over plot style settings. (Ch. 29)

**plus-minus dimensioning**: A tolerance style in which the positive and negative variance is equal and is preceded by a ± symbol. (Ch. 20)

**point entry**: Identifying a point location in 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) The point at which a polyline arc meets another polyline arc or a straight polyline segment. (Ch. 13)

point parameter: A parameter that defines an XY coordinate location in the drawing. (Ch. 27)

point-to-point dimensioning: A method of dimensioning in which dimensions are placed in a line from one feature to the next. Also called chain dimensioning. (Ch. 18)

polar array: A circular pattern of objects. (Ch. 14)

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. 17)

polar parameter: A parameter that includes a distance property and an angle property. (Ch. 27)

polar tracking: A drawing aid that causes the drawing crosshairs to “snap” to predefined angle increments. (Ch. 3) Mode that allows the crosshairs to snap to preset incremental angles if a point is being located relative to another point. (Ch. 7)

polygon: Closed plane figure with at least three sides. Triangles and rectangles are examples of polygons. (Ch. 3)

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

polyline vertex: The point at which two straight polyline segments meet. (Ch. 13)

portrait: A vertical paper orientation. (Ch. 5)

position symbol: A symbol used to identify a positional tolerance. (Supplement 20A)

prefixes: Special notes or applications placed in front of the dimension text. (Ch. 17)

primary datum reference: The first datum in the precedence of datums. (Supplement 20A)

projected tolerance zone: A tolerance zone established at true position that projects a specified distance away from the primary datum. (Supplement 20A)

projection plane: The imaginary projection plane that is parallel to the object. (Ch. 8)

property filter: A filter that screens layers according to a specific layer property. (Ch. 5)

publish: Create electronic files for distribution or plotting. (Ch. 33)
purge: Delete unused named objects from a drawing file. (Ch. 25)

Q

quadrant: Quarter section of a circle, donut, or ellipse. (Ch. 7)
quadratic curve: A curve created by the PEDIT Spline option with SPLINETYPE set at 5. (Ch. 13)

R

radio button: A selection that activates a single item in a group of options. (Ch. 2)
ray: An AutoCAD line 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 tool. (Ch. 2)
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. 25)
realtime panning: A panning operation in which you can see the drawing move on the screen as you pan. (Ch. 6)
realtime zoom: A zoom that can be viewed as it is performed. (Ch. 6)
rectangular array: A pattern made up of columns and rows of objects. (Ch. 14)
rectangular coordinate dimensioning without dimension lines: A type of dimensioning that includes only extension lines and text aligned with the extension lines. Also called arrowless dimensioning. (Ch. 19)
rectangular coordinate system: A system in which points are located in space according to distances from three intersecting axes. Also called Cartesian coordinate system. (Ch. 3) A system for locating dimensions from surfaces, centerlines, or center planes using linear dimensions. (Ch. 17)
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)
redlining: The process of reviewing a drawing and marking required changes. Also called marking up. (Ch. 19)
**redrawing**: Refreshing the display of objects on the screen without recalculating the vectors. (Ch. 6)

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

**reference editing**: Editing reference drawings from within the host file. (Ch. 32)

**regardless of feature size (RFS)**: A material condition in which the geometric tolerances remain the same, regardless of the actual produced size. (Supplement 20A)

**regenerating**: Recalculating all objects based on the current zoom magnification and redisplaying them. (Ch. 6)

**region**: A closed 2D area that can have physical properties such as centroids and products of inertia. (Ch. 13, 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 position, rather than from the origin. (Ch. 3)

**relative operators**: In math, functions that determine the relationship between data items. (Supplement 15B)

**relative path**: A path to a file defined according to its location relative to the host drawing. (Supplement 11A, Ch. 32)

**reload**: Update an xref in the host drawing. (Ch. 32)

**removed sections**: Section views that are similar to revolved sections, but are removed from the regular view. (Ch. 23)

**repetitive features**: Many features having the same shape and size. (Ch. 19)

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

**revision block**: A block that provides space for the revision letter, a description of the change, the date, and approvals. (Ch. 26)

**revision cloud**: A polyline of sequential arcs used to form a cloud shape around changes in a drawing. (Ch. 19)

**revolved sections**: Sections that clarify the contour of objects that have the same shape throughout their length. (Ch. 23)
ribbon: The palette that extends across the top of the Inventor interface and contains multiple tabs for convenient tool access. (Ch. 1)
ribbon panels: Palette divisions that group tools. Also called panels. (Ch. 1)
right-click: Use the right mouse button to select. (Ch. 1)
root point: The first point specified to create a construction line. (Ch. 8)
rotate action: An action used to rotate individual objects within a block without affecting the other objects in the block. (Ch. 27)
rotation parameter: A parameter that allows objects in a block to rotate independently of the block. (Ch. 27)
round: A rounded exterior corner. (Ch. 4) A rounded exterior corner used to remove sharp edges or ease the contour of exterior corners. (Ch. 12, 19)
rubberband line: A stretch line that extends from the crosshairs with certain drawing tools to show where an object will be drawn. (Ch. 3)
running object snaps: Object snap modes that run in the background during all drawing and editing procedures. (Ch. 7)

S
scalable fonts: Fonts that can be displayed or printed at any size while retaining proportional letter thickness. (Ch. 9)
scale: The ratio between the actual size of drawing objects and the size at which objects plot on a sheet of paper. Also the process of enlarging or reducing objects to fit properly on a sheet of paper. (Ch. 31)
scale action: An action used to scale some of the objects within a block independently of the other objects. (Ch. 27)
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. 25, 31)
scroll bar: A bar tipped with buttons used to scroll through a list of options or information. (Ch. 1)
secondary datum reference: The second in the precedence of datums. (Supplement 20A)
**section:** A view that shows internal features as if a portion of the object has been cut away. Also known as a *section view*. (Ch. 23)

**section lines:** Thin lines, usually drawn in a pattern, that are used in a section view to show where material has been cut away. (Ch. 5) Lines that show where material has been cut away. (Ch. 23)

**section view:** A view that shows internal features as if a portion of the object has been cut away. Also known as a *section*. (Ch. 23)

**selected grip:** A grip that has been picked to perform an operation. (Ch. 15)

**selection set:** A group of one or more drawing objects, typically defined to perform an editing operation. (Ch. 3)

**shade:** A specific color mixed with gray or black. (Ch. 23)

**sheet:** The paper used to lay out and plot drawings. (Ch. 2) A printed drawing or electronic layout produced for a project. (Ch. 33)

**sheet list:** A list of all the pages in a sheet set and the type of information found on each sheet. (Ch. 33)

**sheet set:** A collection of drawing sheets for a project. (Ch. 33)

**sheet size:** Size of the paper used to lay out and plot drawings. (Ch. 2, 29)

**sheet view:** A referenced portion of a drawing set, such as an elevation, a section, or a detail. (Ch. 33)

**shoulder:** A short horizontal line usually added to the end of straight leader lines. (Ch. 19)

**shortcut key:** Single key or key combination used to quickly issue a command or select an option. Also called *keyboard shortcut*. (Ch. 1)

**shortcut menus:** Context-sensitive menus available by right-clicking on interface items or drawing objects. Menu content varies based on the location of the cursor and the current conditions, such as whether a tool is active or whether an object is selected. (Ch. 1)

**size dimensions:** Dimensions that provide the size of physical features. (Ch. 17)

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

**snap:** Invisible grid that allows the crosshairs to move only in exact increments. Also called *snap resolution* or *snap grid*. (Ch. 3)
**snap grid**: Invisible grid that allows the crosshairs to move only in exact increments. Also called *snap resolution* or *snap*. (Ch. 3)

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

**snap resolution**: Invisible grid that allows the crosshairs to move only in exact increments. Also called *snap grid* or *snap*. (Ch. 3)

**soft copy**: The electronic data file of a drawing. (Ch. 5)

**solid model**: A 3D model defined by object surfaces and volume; includes physical properties, such as mass and density, that can be analyzed. (Ch. )

**source object**: When matching properties, the object with the properties you want to copy to other objects. (Ch. 15)

**source points**: Points to define a reference line relative to the object’s original position for an *ALIGN* operation. (Ch. 14)

**spatial index**: A list of objects ordered according to their locations in 3D space. (Ch. 32)

**specific notes**: Notes that relate to individual or specific features on the drawing. (Ch. 17)

**specified dimension**: The part of the dimension from which the limits are calculated. (Ch. 20)

**spline**: A nonuniform rational B-spline (NURBS) curve; a mathematically correct spline. (Ch. 4)

**spline curve**: A curve that passes through the first and last control points and is influenced by the other control points. (Ch. 13)

**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. 19)

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

**standards**: Guidelines containing operating procedures, drawing techniques, 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 tools 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. 27)
subregion: The displayed portion of a clipped xref. (Ch. 32)
subsets: Groups of layouts based on folder hierarchy. (Ch. 33)
sub-units: Unit formats that are smaller than the primary unit format. For example, centimeters can be defined as a sub-unit of meters. (Ch. 17)
suffixes: Special notes or applications placed after the dimension text. (Ch. 17)
surface model: A 3D model consisting of volumeless surfaces, such as planes and curved faces that represent the exterior of an object. (Ch. 9)
symbol library: A collection of related blocks, shapes, views, symbols, or other content. (Ch. 25)
symmetrical tolerance: AutoCAD’s term for an equal bilateral tolerance. (Ch. 20)
system variable: A command that configures AutoCAD to accomplish a specific task or exhibit a certain behavior. The value of each variable is saved with the drawing, so the next time the drawing is opened, the value remains the same. (Ch. 1)

T
tab: A small stub at the top or side of a page, window, dialog box, or palette, allowing access to other portions of the item. (Ch. 1)
table: An arrangement of rows and columns that organize data to make it easier to read. (Ch. 11)
table indicator: The grid of letters and numbers that appear around the table while the table is being edited to identify individual cells. (Ch. 11)
table style: A saved collection of table settings, including direction, text appearance, and margin spacing. (Ch. 11)
tabular dimensioning: A form of rectangular coordinate dimensioning without dimension lines in which dimensions are shown in a table. (Ch. 19)
template: A file that contains standard drawing settings and objects for use in new drawings. Also called a drawing template. (Ch. 1, 2)
tangent: A line, circle, or arc that meets another circle or arc at only one point. (Ch. 4)
tertiary datum reference: The third in the precedence of datums. (Supplement 20A)
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 part of the multiline or single-line text system where text is typed. (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)
tiled viewports: Viewports created in model space. (Ch. 6)
tint: A specific color mixed with white. (Ch. 23)
tolerance: The total amount by which a specific dimension is permitted to vary. (Ch. 20)
tolerance stack: Text that is stacked vertically without a fraction bar. (Ch. 9)
tool: An instruction issued to the computer to complete a specific task. For example, the LINE tool is used to draw lines. Also called command. (Ch. 1)
toolbars: Interface items that contain tool buttons or drop-down lists. (Ch. 1)
tool buttons: Interface items used to start tools. (Ch. 1)
tool palette: A palette that contains tabs to help organize tools and other features. (Ch. 23)
tooltip: A pop-up that provides information about the item over which you are hovering. (Ch. 1)
tracking vectors: Temporary lines that display at specific angles, typically 0°, 90°, 180°, and 270°. (Ch. 7)
transparently: When referring to tool access, a tool that can be used while another tool is in progress. (Ch. 6)
trimetric: An axonometric drawing in which three different scales are used to measure the three axes. (Ch. 24)

**U**

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 display horizontally on the drawing. (Ch. 17)

unilateral tolerance: A tolerance style that permits a variation in only one direction from the specified dimension. (Ch. 20)

unit block: A 1D, 2D, or 3D block drawn to fit in a 1-unit, 1-unit-square, or 1-unit-cubed area so that it can be scaled easily. (Ch. 25)

unit straightness: A geometric tolerance for material straightness given per unit length, with a separate tolerance over the total length. (Supplement 20A)

unload: Suppress the display of an xref without removing it from the host drawing. (Ch. 32)

updating: AutoCAD’s procedure for changing text in a field based on the field’s current value. (Ch. 10)

unselected grips: Grips that have not yet been picked to perform an operation. (Ch. 15)

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. 19)

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

**V**

value set: A set of allowed values for a parameter. (Ch. 27)

vanishing point: The point at which objects seem to converge in the distance. (Ch. 24)

variable: Text item that represents another value and can be accessed later as needed. (Ch. 16)

verb/noun selection: Performing tasks in AutoCAD by entering a tool before selecting objects. (Ch. 15)

vertex: The point at which the two lines that form an angle meet. (Ch. 18)
viewing-plane lines: Thick, phantom or dashed lines that identify the location of a view. (Ch. 5) A thick dashed or phantom line identifying the viewing direction of a related view. (Ch. 8)

view label block: A block that contains view information such as the view name, number, and scale. (Ch. 33)

viewport: The window or frame within which a drawing is visible. (Ch. 6)

visibility parameter: A parameter that allows you to assign multiple different views to objects within a block. (Ch. 28)

visibility states: Views created by selecting block objects to display or hide. (Ch. 28)

visible lines: Thick, solid lines that show the contour or outline of objects on a drawing. Also called object lines or outline lines. (Ch. 5)

W

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

wblock: A block definition saved as a separate drawing file. (Ch. 25)

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

welding: The process of connecting the spaces between multiline elements. (Supplement 4A)

wireframe model: A 3D model consisting of lines and curves connecting at the corners of an object to form edges; contains no surface properties or solid mass. (Ch. 1)

working set: Nested objects selected for editing during a REFEDIT operation. (Ch. 32)

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

world coordinate system (WCS): AutoCAD’s rectangular coordinate system. In 2D drafting, the WCS contains four quadrants, separated by the X and Y axes. (Ch. 19)

X

xline: A line in AutoCAD that is infinite in both directions and is used to help build accurate geometry. (Ch. 8)

xref: A DWG, DWF, raster image, DNG, or PDF file incorporated into a drawing for reference only. Also called external reference. (Ch. 32)
**XY parameter**: A parameter that specifies distance properties in the X and Y directions. (Ch. 27)

**Z**

**zip file**: A file that contains one or more files compressed using the Windows ZIP file format. (Ch. 33)

**zones**: A system of letters and numbers used on large drawings to help direct the print reader's attention to the correction location on the drawing. (Ch. 26)

**zoom in**: Change the display area to show a smaller part of the drawing at a higher magnification. (Ch. 6)

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

**zooming**: Making objects appear bigger (zoom in) or smaller (zoom out) on the screen without affecting their actual sizes. (Ch. 6)