

CONTENTS AT A GLANCE

	<i>Introduction</i>	<i>xv</i>
CHAPTER 1	Getting to Know AutoCAD	1
CHAPTER 2	Basic Commands to Get Started	23
CHAPTER 3	Setting Up a Drawing	51
CHAPTER 4	Gaining Drawing Strategies: Part 1	73
CHAPTER 5	Gaining Drawing Strategies: Part 2	123
CHAPTER 6	Using Layers to Organize Your Drawing	167
CHAPTER 7	Grouping Objects into Blocks	213
CHAPTER 8	Generating Elevations	273
CHAPTER 9	Working with Hatches and Fills	309
CHAPTER 10	Controlling Text in a Drawing	345
CHAPTER 11	Dimensioning a Drawing	403
CHAPTER 12	Managing External References	455
CHAPTER 13	Using Layouts to Set Up a Print	491
CHAPTER 14	Printing an AutoCAD Drawing	543
APPENDIX A	A Look at Drawing in 3D	579
GLOSSARY		625
	<i>Index</i>	<i>638</i>

CONTENTS

	<i>Introduction</i>	<i>xv</i>
CHAPTER 1	Getting to Know AutoCAD	1
	Starting Up AutoCAD	2
	The Startup Dialog Box	2
	Introduction to the AutoCAD Graphics Window	5
	The Command Window	10
	Drop-Down Menus	11
	The Toolbars	12
	Toolbar Flyouts	12
	Displaying and Arranging Toolbars	14
	Custom Toolbars	18
	Profiles	19
	The Keyboard	20
	The Mouse	21
	Are You Experienced?	22
CHAPTER 2	Basic Commands to Get Started	23
	The Line Command	24
	Using Coordinates	28
	Relative Coordinates	30
	Drawing the Box	32
	Using Relative Cartesian Coordinates	32
	Erasing Lines	34
	Controlling How the Selection Tools Are Displayed	34
	Using Relative Polar Coordinates	35
	The Offset Command	36
	The Fillet Command	39
	Completing the Box	42
	Offsetting Lines to Mark an Opening	42
	Extending Lines	43
	Trimming Lines	45
	If You Would Like More Practice...	49
	Are You Experienced?	50

CHAPTER 3	Setting Up a Drawing	51
	Drawing Units	52
	Drawing Size	56
	The Grid	56
	Drawing Limits	59
	Drawing with Grid and Snap	62
	A Closer Look at Dynamic Display	66
	Saving Your Work	69
	A Summary of AutoCAD's Units	70
	Linear Units	71
	Angular Units	71
	Are You Experienced?	72
CHAPTER 4	Gaining Drawing Strategies: Part 1	73
	Laying Out the Walls	75
	The Exterior Wall Lines	75
	The Interior Walls	79
	Cutting Openings in the Walls	88
	Creating Doors	95
	Drawing Swinging Doors	95
	Copying Objects	103
	Mirroring Objects	105
	Finishing the Swinging Doors	107
	Drawing a Sliding Glass Door	109
	If You Would Like More Practice...	119
	An Alternate Sliding Glass Door	119
	An Addition to the Cabin	119
	Draw Three Views of a Block	120
	Are You Experienced?	122
CHAPTER 5	Gaining Drawing Strategies: Part 2	123
	Drawing the Steps and Thresholds	126
	The Front Step	126
	The Back Step	130
	The Thresholds	134
	The Balcony: Drawing Circles	136
	Laying Out the Kitchen	140
	The Counter	141
	The Stove and Refrigerator	144

	Completing the Stove	145
	The Kitchen Sink	150
	Constructing the Bathroom	152
	Setting Running Object Snaps	152
	Drawing a Shower Unit	154
	The Bathroom Sink	156
	Positioning a Toilet	157
	If You Would Like More Practice...	162
	Draw the Cabin Again	162
	Draw Something Else	162
	Draw Some Furniture for the Cabin	162
	Draw a Gasket	163
	Draw a Parking Lot	165
	Are You Experienced?	166
CHAPTER 6	Using Layers to Organize Your Drawing	167
	Layers as an Organization Tool	168
	Setting Up Layers	170
	The Layer Properties Manager Dialog Box	171
	Assigning Objects to Layers	184
	Turning Off and Freezing Layers	193
	Drawing the Headers	195
	Drawing the Roof	199
	Assigning an Individual Linetype Scale Factor	203
	Properties of Layers and Objects	209
	If You Would Like More Practice...	211
	Experiment with Linetypes and Linetype Scales	211
	Set Up Layers for Your Own Trade or Profession	212
	Are You Experienced?	212
CHAPTER 7	Grouping Objects into Blocks	213
	Making a Block for a Door	214
	Inserting the Door Block	218
	Dynamic Blocks	226
	Finding Blocks in a Drawing	228
	Using Grips to Detect a Block	228
	Using the List Command to Detect a Block	228
	Using the Properties Palette to Detect a Block	231
	Creating a Window Block	232

Inserting the Window Block	235
Rotating a Block During Insertion	236
Using Guidelines When Inserting a Block	239
Using Object Snap Tracking and Polar Tracking to Insert a Block	241
Finishing the Windows	247
Revising a Block	250
Sharing Information between Drawings	254
Dragging and Dropping between Two Open Drawings	254
Using AutoCAD's DesignCenter	258
Other Ways to Share Information between Drawings	264
If You Would Like More Practice...	271
Are You Experienced?	272
CHAPTER 8	
 Generating Elevations	273
<hr/>	
Drawing the Front Elevation	274
Setting Up Lines for the Heights	276
Using Grips to Copy Lines	278
Trimming Lines in the Elevation	281
Drawing the Roof in Elevation	283
Putting in the Door, the Step, and the Windows	287
Finishing Touches	293
Generating the Other Elevations	294
Making the Rear Elevation	294
Revising the Rear Elevation	297
Making the Left and Right Elevations	299
Drawing Scale Considerations	305
Interior Elevations	306
If You Would Like More Practice...	307
Are You Experienced?	308
CHAPTER 9	
 Working with Hatches and Fills	309
<hr/>	
Hatching the Front Elevation	310
Looking at Hatch Patterns	314
Hatching the Rest of the Front Elevation	316
Special Effects	319
Modifying a Hatch Pattern	325
Using Hatches in the Floor Plan	327
Hatching the Floors	327
Finishing the Hatches for the Floors	331
Hatching the Walls in the Floor Plan	332

Modifying the Shape of Hatch Patterns	334
Creating and Managing Tool Palettes	335
Creating a New Tool Palette	336
Setting Up a Palette for Hatches	337
Creating a Palette for Commands	339
If You Would Like More Practice...	341
Create a Hatch Pattern for the Roof in Plan View	341
Create Your Hatch Palette	343
Are You Experienced?	344
CHAPTER 10 Controlling Text in a Drawing	345
Setting Up Text Styles	346
Text and Drawing Scale	347
Defining a Text Style for Room Labels	348
Using Single-Line Text	350
Placing Titles of Views in the Drawing	350
Placing Room Labels in the Floor Plan	353
Using Text in a Grid	359
Creating a Title Block and Border	368
Using Multiline Text	382
Other Aspects of Multiline Text	389
Creating a Table	394
Defining a Table Style	394
Designing a Table	397
If You Would Like More Practice...	401
Are You Experienced?	402
CHAPTER 11 Dimensioning a Drawing	403
Dimension Styles	404
Making a New Dimension Style	404
Placing Dimensions on the Drawing	420
Horizontal Dimensions	420
Vertical Dimensions	427
Other Types of Dimensions	430
Radial Dimensions	430
Leader Lines	433
Angular and Aligned Dimensions	435
Modifying Dimensions	439
Modifying Dimension Text	439
Dimension Overrides	445
Dimensioning Short Distances	447

If You Would Like More Practice...	451
Exercise 1: Dimensioning the Garage Addition	451
Exercise 2: Dimensioning to a Center Line	452
Other Exercises	454
Are You Experienced?	454
CHAPTER 12 Managing External References	455
Drawing a Site Plan	457
Using Surveyor Units	457
Drawing the Driveway	460
Setting Up an External Reference	464
The External Reference Dialog Box	464
Controlling the Appearance of an Xref	466
Moving and Rotating an Xref	472
Modifying an Xref Drawing	474
Modifying an Xref by Making It the Current Drawing	475
Modifying an Xref from within the Host Drawing	479
Applications for Xrefs	483
Additional Xref Features	484
The Xref Path	484
Binding Xrefs	486
Other Features of Xrefs	488
If You Would Like More Practice...	489
Are You Experienced?	490
CHAPTER 13 Using Layouts to Set Up a Print	491
Setting Up Layouts	492
Drawing a Border on a Layout	499
Designing a Title Block for a Layout	501
Adjusting a Viewport	505
Switching between Model Space and a Layout	507
Working with Multiple Viewports in a Layout	509
Setting Up Multiple Viewports	510
Aligning Viewports	515
Finishing the 11" × 17" Drawing	517
Setting Up Viewports in Different Scales	520
Adding Multiple Viewports to a Layout	526
Adding Text to Paper Space	535
Turning Off Viewports	538
If You Would Like More Practice...	540
Are You Experienced?	542

CHAPTER 14	Printing an AutoCAD Drawing	543
	The Plot Dialog Box	545
	Printer/Plotter	546
	Paper Size and Number of Copies	547
	The Plot Area	547
	Plot Scale	552
	Plot Offset and Plot Options	553
	The Expanded Plot Dialog Box	554
	Printing a Drawing	555
	Determining Lineweights for a Drawing	556
	Other Properties of Layers	559
	Setting Up the Other Parameters for the Print	560
	Previewing a Print	560
	Printing a Drawing Using Layouts	563
	Printing a Drawing with Multiple Viewports	564
	Printing the Site Plan	567
	A Few Words About Plot Styles	569
	Plot Style Table Files	570
	Are You Experienced?	578
APPENDIX A	A Look at Drawing in 3D	579
	3D Modeling	581
	Viewing a Drawing in 3D	581
	Making the Walls	583
	Cutting Doorway Openings	587
	Subtracting Window Openings	589
	Creating a Floor for the Cabin	593
	Forming the Steps and the Balcony in 3D	596
	Finishing the 3D Model	601
	Putting a Roof on the Cabin	605
	Further Directions in 3D	607
	Other Solids Modeling Tools	608
	Surface Modeling Tools	609
	Rendering with AutoCAD	611
GLOSSARY		625
	<i>Index</i>	638