

Sketch Number and Filename Reference Chart

The following tables reference the Sketch filenames to the Sketch number found in the text. The Sketches are available as jpeg files, so each filename will be followed by “.jpg”.

Chapter 1: Descartes’ Discovery

Sketch Number	Filename
Sketch 1.1	D
Sketch 1.2	gloloc
Sketch 1.3	glollocD
Sketch 1.4	boxex
Sketch 1.5	gloloc2
Sketch 1.6	airplane
Sketch 1.7	gloloc3d
Sketch 1.8	outbox
Sketch 1.9	out3D

Chapter 2: Here and There: Points and Vectors

Sketch Number	Filename
Sketch 2.1	points
Sketch 2.2	point_vector
Sketch 2.3	vectors
Sketch 2.4	manyvecs
Sketch 2.5	spaces
Sketch 2.6	parallelogram
Sketch 2.7	vecscale
Sketch 2.8	pointscale
Sketch 2.9	addpoints
Sketch 2.10	vector_lgth
Sketch 2.11	distpt
Sketch 2.12	midpt
Sketch 2.13	barycombo13
Sketch 2.14	ratios
Sketch 2.15	physical
Sketch 2.16	barycombo
Sketch 2.17	linind
Sketch 2.18	perpendicular

Sketch 2.19	generalvw
Sketch 2.20	angles
Sketch 2.21	dotprod_ex
Sketch 2.22	triineq

Chapter 3: Lining Up: 2D Lines

Sketch Number	Filename
Sketch 3.1	define_line
Sketch 3.2	para_line
Sketch 3.3	implicit_line
Sketch 3.4	implicit_example
Sketch 3.5	explicit_line
Sketch 3.6	twolines
Sketch 3.7	distpt2line
Sketch 3.8	closestpt2line
Sketch 3.9	implicit_para
Sketch 3.10	para_para_int
Sketch 3.11	imp_imp

Chapter 4: Changing Shapes: Linear Maps in 2D

Sketch Number	Filename
Sketch 4.1	linearmap2d
Sketch 4.2	scale
Sketch 4.3	sums
Sketch 4.4	genlincombs
Sketch 4.5	rot
Sketch 4.6	shear
Sketch 4.7	projex
Sketch 4.8	tri
Sketch 4.9	2T
Sketch 4.10	detscale
Sketch 4.11	detscale1
Sketch 4.12	leftright

Chapter 5: 2x2 Linear Systems

Sketch Number	Filename
Sketch 5.1	2x2
Sketch 5.2	cramer
Sketch 5.3	idealcas
Sketch 5.4	situation
Sketch 5.5	syshear
Sketch 5.6	lindep2

Sketch 5.7	underdet
Sketch 5.8	homsys
Sketch 5.9	switch

Chapter 6: Moving Things Around: Affine Maps in 2D

Sketch Number	Filename
Sketch 6.1	skewbox
Sketch 6.2	aff2D
Sketch 6.3	newsys
Sketch 6.4	midaff
Sketch 6.5	rotpoint
Sketch 6.6	rotgenex
Sketch 6.7	reflectex
Sketch 6.8	tritri

Chapter 7: Eigen Things

No Sketches

Chapter 8: Breaking it Up: Triangles

Sketch Number	Filename
Sketch 8.1	triangle
Sketch 8.2	barcor
Sketch 8.3	barcoex
Sketch 8.4	barcosys
Sketch 8.5	affinv
Sketch 8.6	centr
Sketch 8.7	incent
Sketch 8.8	circum1
Sketch 8.9	notri
Sketch 8.10	triuniq
Sketch 8.11	datastruct
Sketch 8.12	ncheck

Chapter 9: Conics

Sketch Number	Filename
Sketch 9.1	hypencil
Sketch 9.2	ell0
Sketch 9.3	ell2

Sketch 9.4	ell1
Sketch 9.5	ell3
Sketch 9.6	hyperbola
Sketch 9.7	parabola

Chapter 10: 3D Geometry

Sketch Number	Filename
Sketch 10.1	3D_pt_vec
Sketch 10.2	vector_lgth3D
Sketch 10.3	unitvecs3D
Sketch 10.4	crossp
Sketch 10.5	pgram_area
Sketch 10.6	spec_line_not
Sketch 10.7	skew_lines
Sketch 10.8	pn_plane
Sketch 10.9	pn_plane_origin
Sketch 10.10	pt_to_plane
Sketch 10.11	plane_parametric
Sketch 10.12	many_planes
Sketch 10.13	planebisector
Sketch 10.14	ppiped

Chapter 11: Interactions in 3D

Sketch Number	Filename
Sketch 11.1	pointplane
Sketch 11.2	ptplex
Sketch 11.3	ptplanenor
Sketch 11.4	2lines3D
Sketch 11.5	2linesex
Sketch 11.6	ray_trace
Sketch 11.7	intersect
Sketch 11.8	linplaex
Sketch 11.9	triline
Sketch 11.10	reflect
Sketch 11.11	int3plan
Sketch 11.12	3planex
Sketch 11.13	parplan
Sketch 11.14	2planes
Sketch 11.15	auxplane
Sketch 11.16	gram3d
Sketch 11.17	gram3d3

Chapter 12: Linear Maps in 3D

Sketch Number	Filename
Sketch 12.1	eott
Sketch 12.2	linear3D
Sketch 12.3	reflect3D
Sketch 12.4	reflect3D1
Sketch 12.5	shear3D
Sketch 12.6	proj3D
Sketch 12.7	rot3D1
Sketch 12.8	rotarb
Sketch 12.9	rotex
Sketch 12.10	det3D

Chapter 13: Affine Maps in 3D

Sketch Number	Filename
Sketch 13.1	aff3D
Sketch 13.2	ratio3D
Sketch 13.3	centet
Sketch 13.4	mapmap
Sketch 13.5	tetet
Sketch 13.6	parallel_proj
Sketch 13.7	projlinpalan
Sketch 13.8	prodownex
Sketch 13.9	perspec

Chapter 14: General Linear Systems

Sketch Number	Filename
Sketch 14.1	solex
Sketch 14.2	nosol
Sketch 14.3	exprojinv

Chapter 15: General Linear Spaces

No Sketches

Chapter 16: Numerical Methods

Sketch Number	Filename
Sketch 16.1	hhreflection

Chapter 17: Putting Lines Together: Polylines and Polygons

Sketch Number	Filename
Sketch 17.1	polylines
Sketch 17.2	ie_angles
Sketch 17.3	minmaxbox
Sketch 17.4	convex_nonconvex
Sketch 17.5	rubber
Sketch 17.6	clip
Sketch 17.7	sumint
Sketch 17.8	regular_polygons
Sketch 17.9	randr
Sketch 17.10	nonsimple
Sketch 17.11	polyhole
Sketch 17.12	turn_angle
Sketch 17.13	winding
Sketch 17.14	area_convex
Sketch 17.15	area_nonc
Sketch 17.16	poly_line_inout
Sketch 17.17	nonz_wind

Chapter 18: Curves

Sketch Number	Filename
Sketch 18.1	bez1
Sketch 18.2	decasdemo
Sketch 18.3	decas
Sketch 18.4	deriv
Sketch 18.5	seconder
Sketch 18.6	c0c1
Sketch 18.7	tangents
Sketch 18.8	slide
Sketch 18.9	frenet

Appendix A: PostScript Tutorial

No Sketches