

MathArt ShapeArt Testing Form

MathArt

ShapeArt



How To Complete This Form

- Click on the Buttons
- Move the Sliders
- Check and Uncheck the Checkbox

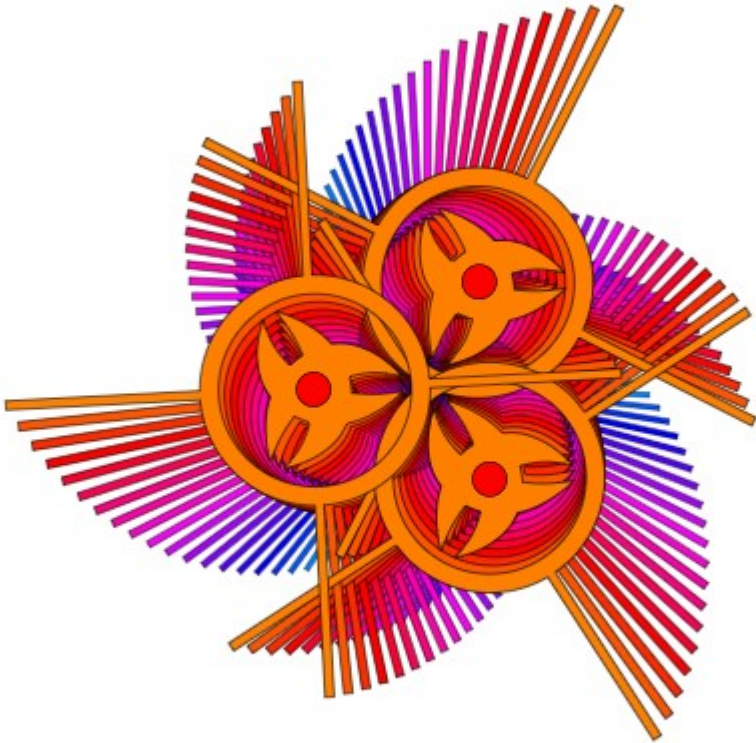
If some action occurred click on the forms box for that test.

STAGE AREA

Stage:

The Stage displays the final artwork. MathArt takes a **primitive** shape and applies the transformation values to it.

A **primitive** is a predefined shape or a complex collection of shapes composed in the **Basement** area.



BASEMENT AREA

Info:

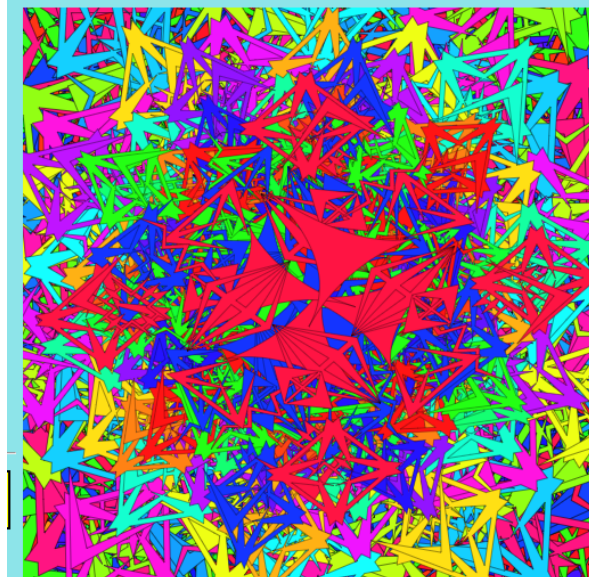
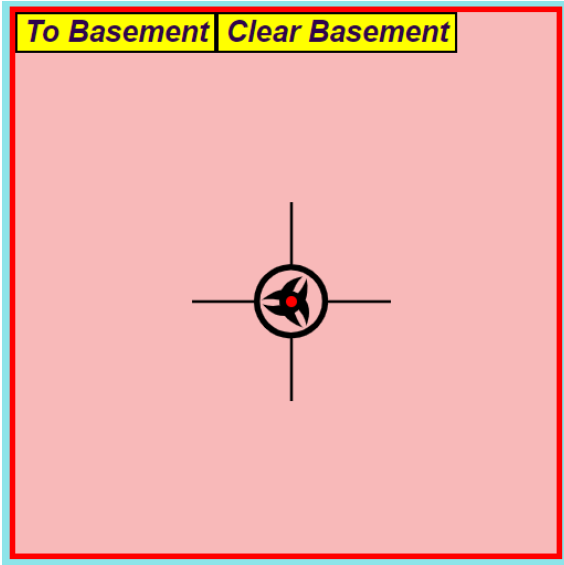
The basement is a work area where you can add a collection of shapes and drag them around.

The Shape Generator clears the Basement so send the shapes to the Kitchen using the **To Kitchen** button in the BASEMENT TOOLS area.

Buttons Test:

To Basement

Clear Basement



Prepare Art

Download Art #basement

Download Art #basement



Prepare Art



Download Art #kitchen

Download Art Buttons

Info:

In any tool area you may wish to capture the art you have created. If Button reads:

Download Art #basement

Then

Click **Prepare Art**

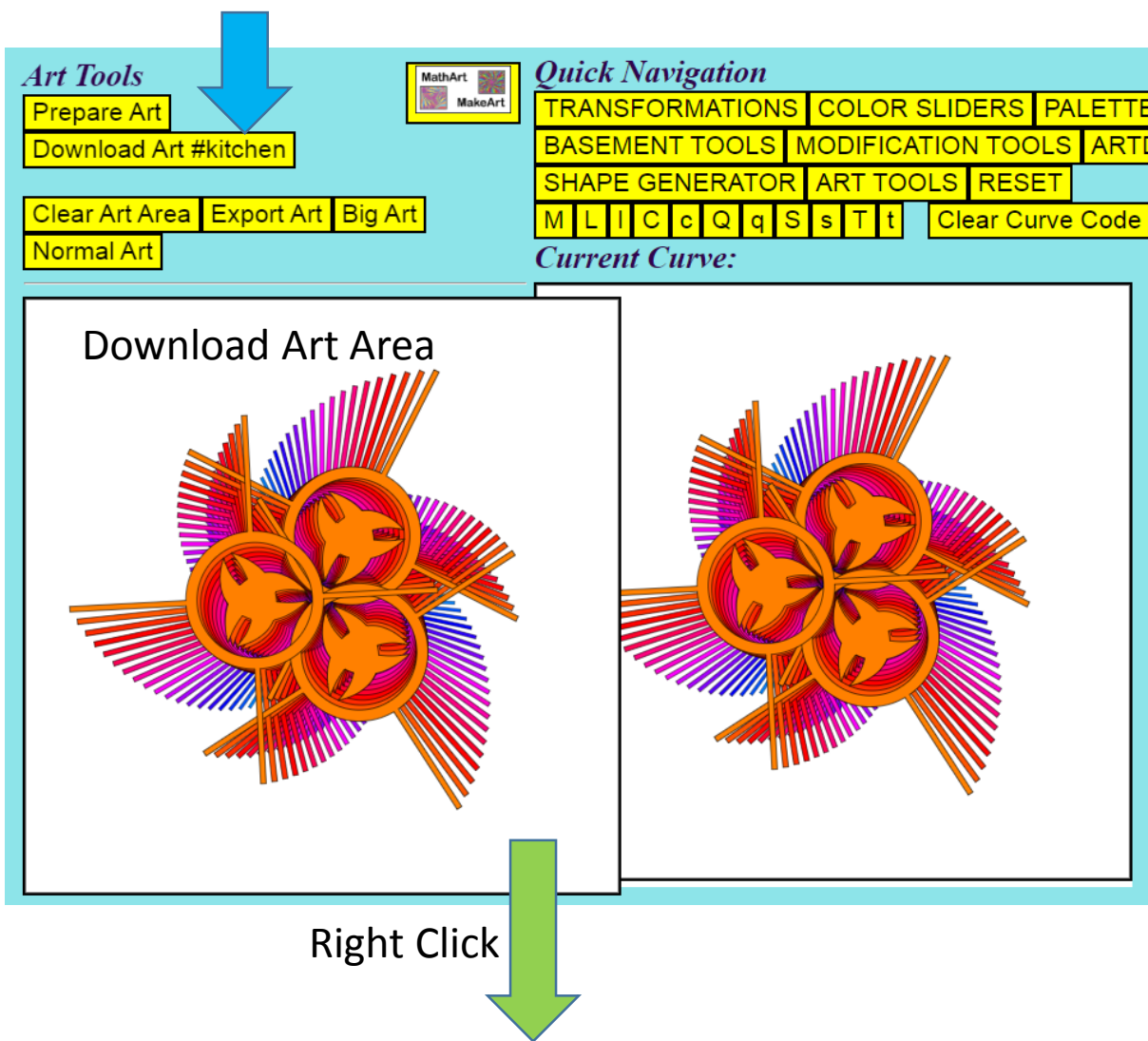
Click **Download Art #kitchen**

Buttons Test:

Download Art #basement

Prepare Art

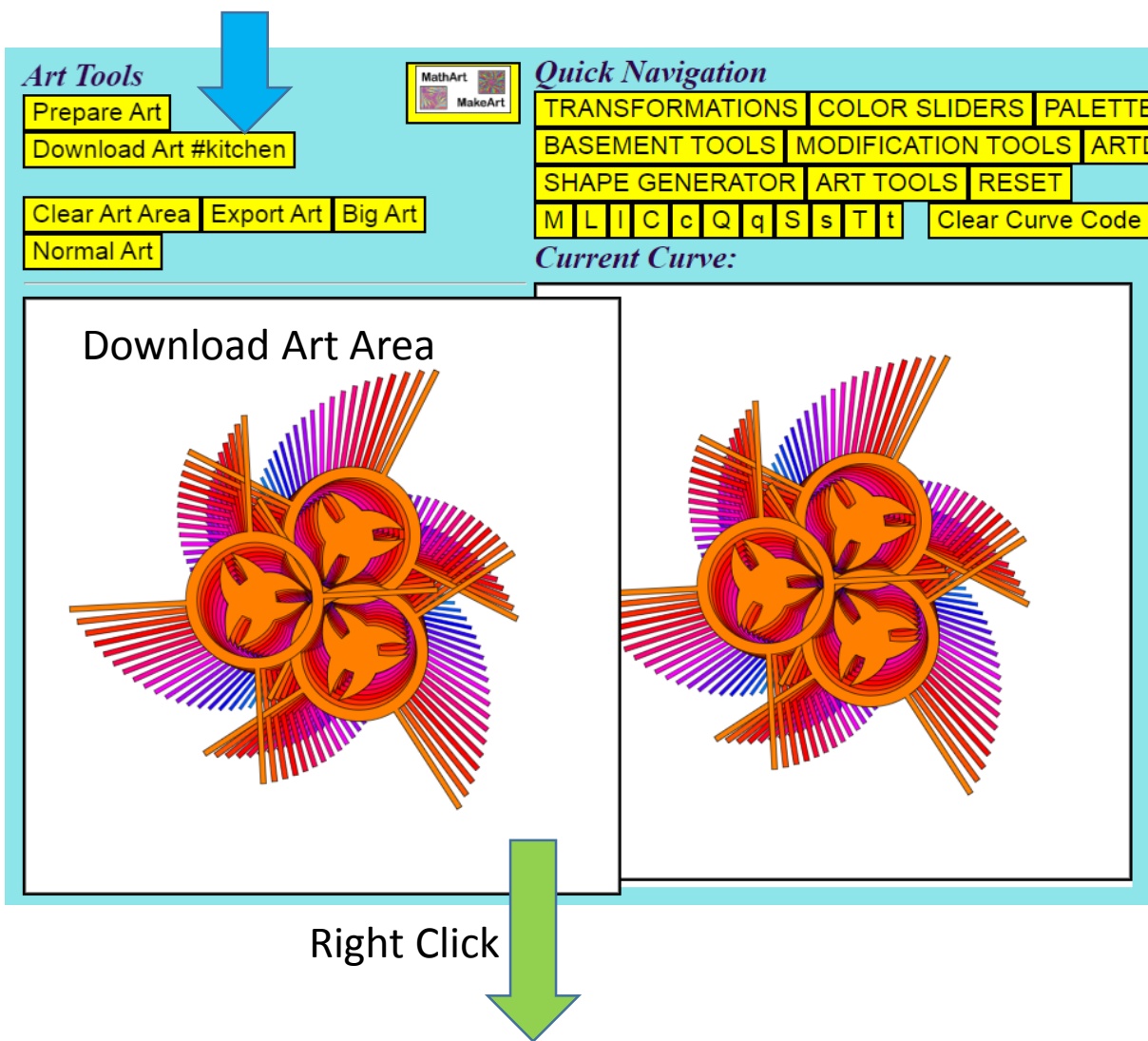
Download Art #kitchen



Save Your Art Method 1:

Steps:

1. Click **Prepare Art**
2. Click **Download Art #kitchen**
3. Right Click on the Art Area
4. Select **Copy Image**
5. Paste Art into:
PowerPoint, Photoshop,
Email, any raster art app.



Save Your Art Method 2:

Steps:

1. Click **Prepare Art**
2. Click **Download Art #kitchen**
3. Right Click on the Art Area
4. Select **Save Image As ...**
5. Select Location to Save
6. Name the file as `<name>.svg`
7. Click **Save**

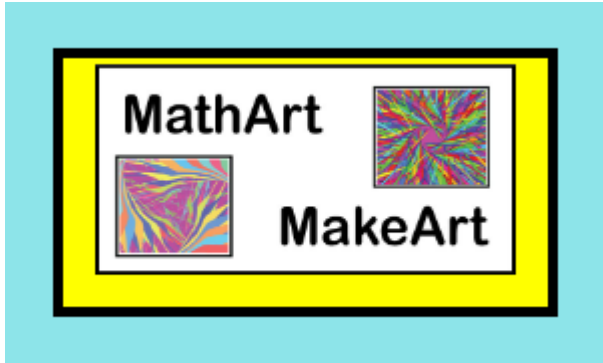
MathArt MakeArt Button

Info:

In any tool area you may wish to change the design values. This button creates a random ArtData string. Then the Stage Area shows this new design.

Button Test:

MathArt MakeArt



Quick Navigation

Quick Navigation

TRANSFORMATIONS				COLOR SLIDERS				PALETTES				PRIMITIVES			
BASEMENT TOOLS				MODIFICATION TOOLS				ARTDATA TOOLS							
SHAPE GENERATOR				ART TOOLS				RESET							
M	L	I	C	c	Q	q	S	s	T	t	Clear Curve Code				

Current Curve:

See **Shape Generator Ares** for these button tests:

M L I C c Q q S s T t Clear Curve Code

Buttons Test:

TRANSFORMATIONS

COLOR SLIDERS

PALETTES

PRIMITVES

BASEMENT TOOLS

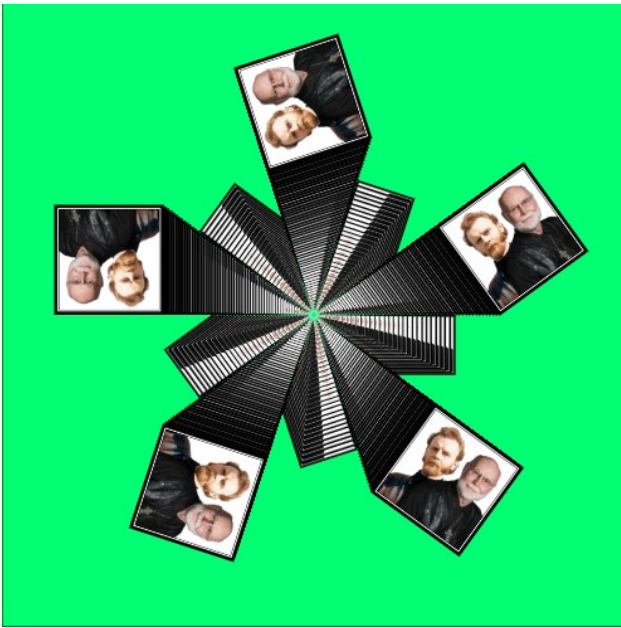
MODIFICATION TOOLS

ARTDATA TOOLS

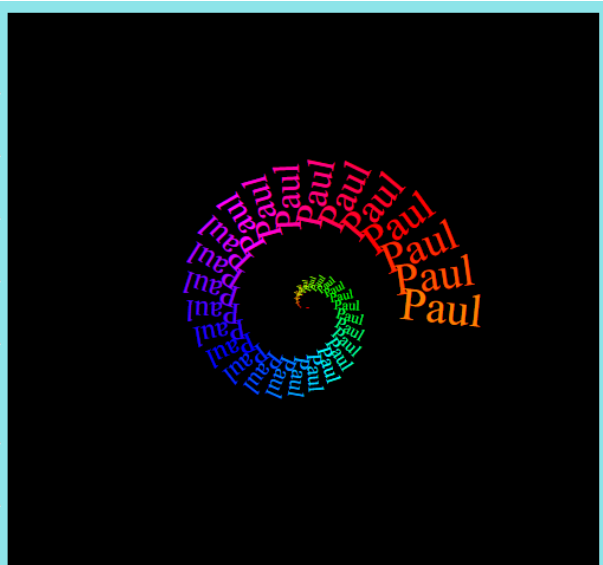
SHAPE GENERATOR

ART TOOLS

RESET



Paste Image Address Type in Text



Special Input Types

Click **Paste Image Address**

Enter a Web Address - Example:

<https://paulgaryphillips.com/imagesofpaul/imagesofpaul068.jpg>

Click **Type in Text:**

Enter the word – Example:

Paul

Buttons Test:

Paste Image Address

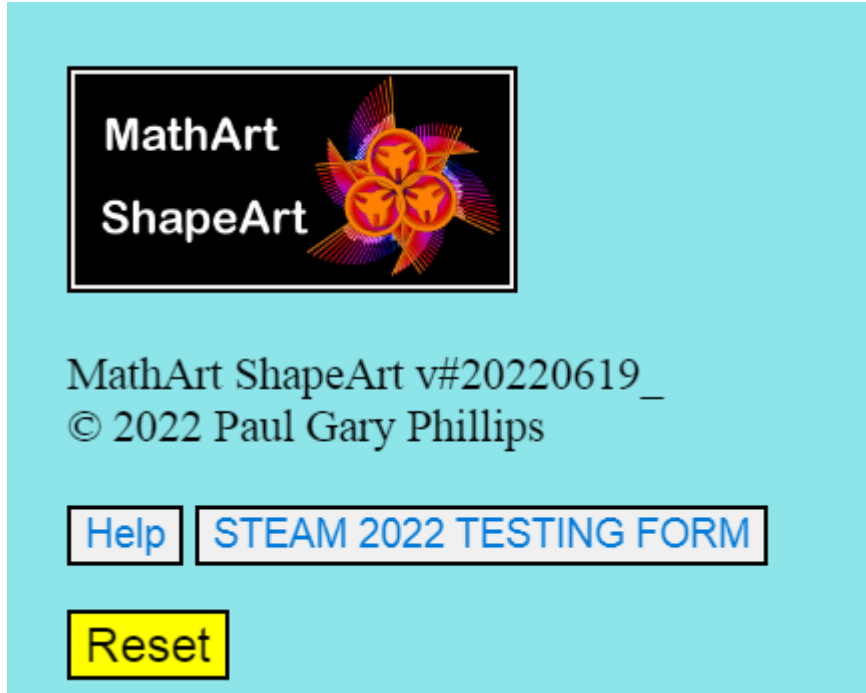
Type in Text

Logo Area

Info:

1. Click **Help** to view slide show.
2. Click **STEAM 2022 TESTING FORM** to open activity instructions
3. Click **Reset** to return to default values.

Note: **Reset** does not erase the Basement shapes.



Buttons Test:

Help

STEAM 2022 TESTING FORM

Reset

Color Palette Tools

Prepare Art

Download Art #basement

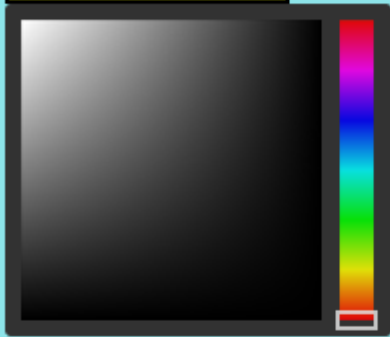
Open Palette ☒

Click on Slider Color

Click on Shade in Box

Click ADD COLOR

COLOR ADD



Selected Color:

{ "r": 100, "g": 130, "b": 150, "a": 1

SHOW/HIDE PALETTE

NEW PALETTE

PASTE PALETTE

SAVE PALETTE

Random Palette Colors ☐

Palette Tests

Color Picker Test

Follow the directions.

What happens?



Buttons Test:

COLOR ADD

SHOW/HIDE PALETTE

NEW PALETTE

PASTE PALETTE

SAVE PALETTE

Checkbox Test:

Open Palette Area

Random Palette Colors

Transformation Tests

Transformation Tools

MathArt MakeArt

Prepare Art

Download Art #basement

1 2 3 4 5 6 ArrayBar

Stage Size 500

Spread 200

Zoom In ☐ Out ☐ 1

Layers 40

Rotate ☐ 3

Scale ☐ 0.03

Skew X ☐ 0

Skew Y ☐ 0

Horizontal ☐ 0

Vertical ☐ 0

	Buttons Test	Sliders Test	Checkbox Test	Input Field Test
123456	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage Size	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Spread	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Zoom	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Layers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rotate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scale	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Skew X	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Skew Y	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Horizontal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vertical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Color Slider Tests

Hue 10

Sat 100

Val 100

Alpha 1

Stroke Color 0

Stroke Width 2

Background Color 360

Black ☐ White ☐

Lock background ☐ 360

	Buttons Test	Sliders Test	Checkbox Test	Input Field Test
Hue				
Sat				
Val				
Alpha				
Stroke Color				
Stroke Width				
Background Color				
Black				
White				
Lock background				

Primitive List

Prepare Art

Download Art #basement



angle	arrow	arrowbox
arrowtri	blob	bug
castle1	circle	circlec
compass	cross	diamondh
diamondv	ellipse	film
greek	heart	hexagon
leaves	lightning1	moon
newshape	octagon	pentagon
petal	pointer	polyshape
pyramid	roman	scribble
square	star	stick
sun	shapeart	triangle
axis	Basement	Kitchen
Poly	Bezier	Quadratic

Lock Shape. ☐ #basement

Primitives Test

angle	arrow	arrowbox
arrowtri	blob	bug
castle1	circle	circlec
compass	cross	diamondh
diamondv	ellipse	film
greek	heart	hexagon
leaves	lightning1	moon
newshape	octagon	pentagon
petal	pointer	polyshape
pyramid	roman	scribble
square	star	stick
sun	shapeart	triangle
axis	Basement	Kitchen
Poly	Bezier	Quadratic

Basement Tools Test

- Buttons:





	Basement		ToBasement		ClearBasement
	Kitchen		ToKitchen		ClearKitchen
	Defaults		OneShape		Recover
	Show Basement		Move Basement		
	Paste Art Data		Save Art Data		
	Paste SVG Object				
	Save Basement Shape				
	Kill Color in SVG Object.				
	Paste Image Address		Type in Text		
	Clear Art Area		Export Art		Big Art
	Normal Art				

Modification Tests

Basement Modification Tools

☐ Duplicate Shape #basement

Rotate Basement

Scale Basement

Lock Scale ☒

Scale X Basement

Scale Y Basement

Skew X Basement

Skew Y Basement

Move X Basement

Move Y Basement

☐ Duplicate Shape
 Flip Left ☐
 Flip UP ☐

	Buttons Test	Sliders Test	Checkbox Test	Input Field Test
Duplicate Shape				
Rotate Basement				
Scale Basement				
Lock Scale				
Scale X Basement				
Scale Y Basement				
Skew X Basement				
Skew Y Basement				
Move X Basement				
Move Y Basement				
Duplicate Shape				
Flip Left				
Flip UP				

ArtData Tests

Show/Hide Art Data

Show/Hide Basement Data

Paste Art Data

Save Art Data

SVG Tools Tests

Paste SVG Object

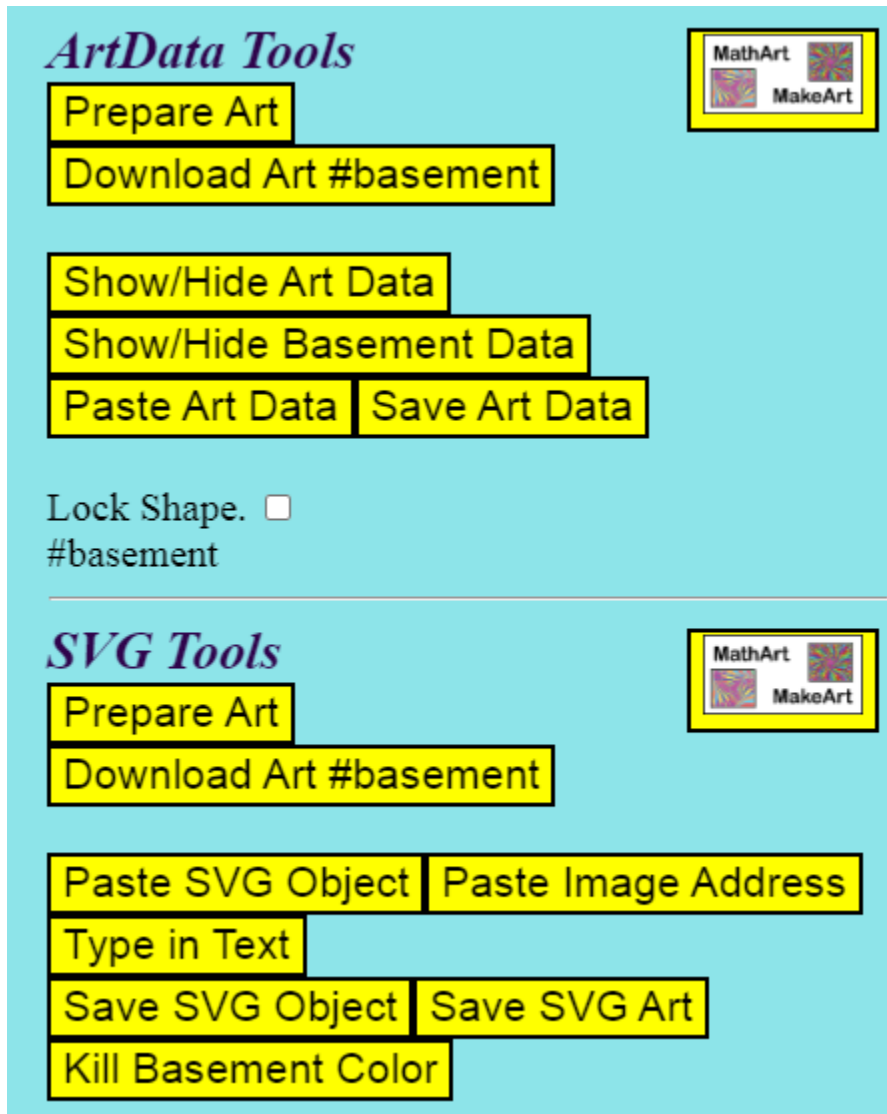
Paste Image Address

Type in Text

Save SVG Object

Save SVG Art

Kill Basement Color



Checkbox:

Lock Shape



Art Tools Tests

Prepare Art

Download Art #kitchen

Clear Art Area

Export Art

Big Art

Normal Art

Shape Generator

Clear Curve Code

M L I C c Q q S s T t z

Quad Bezier Poly

MOVE x0:0 y0:0

xx0 ☒

yy0 ☒

LINE x4:100 y4:100

xx4 ☒

yy4 ☒

Clear Curve Code

Button

Shape Generator Tests 1

M		Button
Ll		Button
Cc		Button
Qq		Button
Ss		Button
Tt		Button

Quad		Button
Bezier		Button
Poly		Button

MOVE		Button		Display		
xx0		Slider		Display		Input
yy0		Slider		Display		Input

LINE		Button		Display		
xx4		Slider		Display		Input
yy4		Slider		Display		Input

Shape Generator Tests 2

C-CURVE

x1:100 y1:100 x2:200 y2:100 x3:300 y3:0

xx1

100

✓

yy1

100

✓

xx2

200

✓

yy2

100

✓

xx3

300

✓

yy3

0

✓

Q-CURVE

x5:250 y5:300 x6:400 y6:200

xx5

250

✓

yy5

300

✓

xx6

400

✓

yy6

200

✓

C-CURVE		Button		Display		
xx1		Slider		Display		Input
yy1		Slider		Display		Input
xx2		Slider		Display		Input
yy2		Slider		Display		Input
xx3		Slider		Display		Input
yy3		Slider		Display		Input

Q-CURVE		Button		Display		
xx5		Slider		Display		Input
yy5		Slider		Display		Input
xx6		Slider		Display		Input
yy6		Slider		Display		Input

Shape Generator Tests 3

S-CURVE

x7:191 y7:325 x8: y8:224

xx7

191

✓

yy7

325

✓

xx8

-387

✓

yy8

224

✓

T-CURVE

x9:-170 y9:203

xx9

-170

✓

yy9

203

✓

S-CURVE		Button		Display		
xx7		Slider		Display		Input
yy7		Slider		Display		Input
xx8		Slider		Display		Input
yy8		Slider		Display		Input

T-CURVE		Button		Display		
xx9		Slider		Display		Input
yy9		Slider		Display		Input

Display Observations

Does something happen to the curve and code data when you test these buttons, sliders, and inputs?

M		Button
LI		Button
Cc		Button
Qq		Button
Ss		Button
Tt		Button

MOVE		Button		
xx0		Slider		Input
yy0		Slider		Input

LINE		Button		
xx4		Slider		Input
yy4		Slider		Input

C-CURVE		Button		
xx1		Slider		Input
yy1		Slider		Input
xx2		Slider		Input
yy2		Slider		Input
xx3		Slider		Input
yy3		Slider		Input

Q-CURVE		Button		
xx5		Slider		Input
yy5		Slider		Input
xx6		Slider		Input
yy6		Slider		Input

S-CURVE		Button		
xx7		Slider		Input
yy7		Slider		Input
xx8		Slider		Input
yy8		Slider		Input

T-CURVE		Button		
xx9		Slider		Input
yy9		Slider		Input

Clear Curve Code		Button
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Current Curve: t-170,203

Path Code: M0,0 c100,100 200,100 300,0 t-336,-69 s191,325 -387,224 t-170,203

Submit Form Now

Click on the **Submit Button** to send
in your form.

