































































# Cardinal Shape Catalog

									
1	2	3	4	5	6	7	8	9	10
									
11	12	13	14	15	16	17	18	19	20
									
21	22	23	24	25	26	27	28	29	30
									
31	32	33	34	35	36	37	38	39	40
									
51	52	53	54	55	56	57	58	59	60
									
61	62	63	64	65	66	67	68	69	70
									
71	72								

- Cardinal's standard definition of corner identification is based on looking at the end application or viewing residential unit from outside of building looking inward.
- Red numbers inside the shapes denote corner identification.
- Blue numbers outside the shapes denote side identification.

# Cardinal Shape Catalog

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

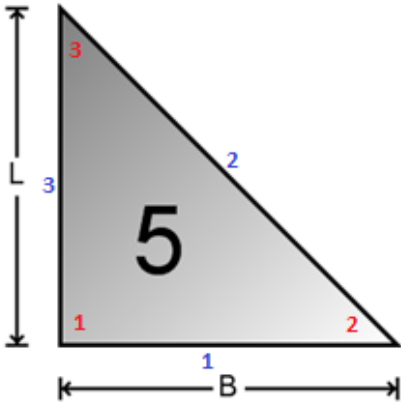
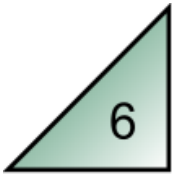



Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

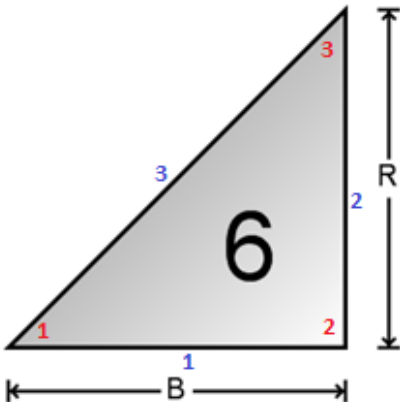
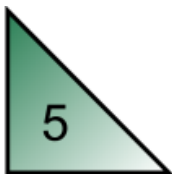



# Cardinal Shape Catalog

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	N/A
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

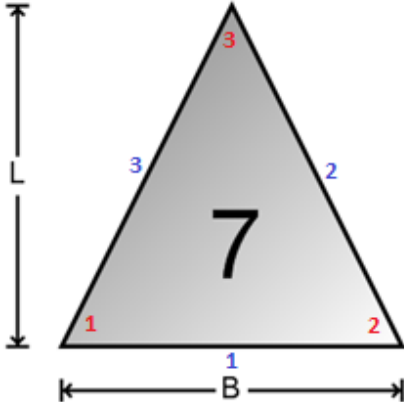



Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	N/A
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

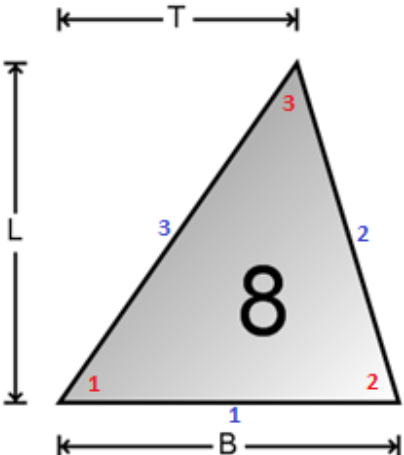



# Cardinal Shape Catalog

		Dimensional Constraints		
		<b><u>Base:</u></b>	Required	
		<b><u>Left:</u></b>	Required	
		<b><u>Right:</u></b>	N/A	
		<b><u>Top:</u></b>	N/A	
		<b><u>S1:</u></b>	N/A	
		<b><u>S2:</u></b>	N/A	
Mirror Image	Possible Configurations			Shape Notes
				<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

		Dimensional Constraints		
		<b><u>Base:</u></b>	Required	
		<b><u>Left:</u></b>	N/A	
		<b><u>Right:</u></b>	Required	
		<b><u>Top:</u></b>	N/A	
		<b><u>S1:</u></b>	N/A	
		<b><u>S2:</u></b>	N/A	
Mirror Image	Possible Configurations			Shape Notes
				<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

## Cardinal Shape Catalog

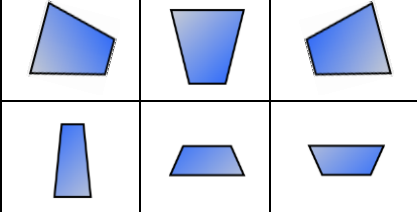
			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	N/A
			<b>Top:</b>	N/A
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>Center Point or Isosceles Triangle</li> </ul>	

			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	N/A
			<b>Top:</b>	Less Than Base; Required
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	

## Cardinal Shape Catalog

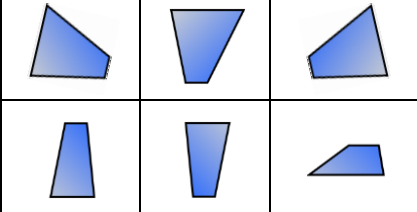
Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	N/A
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	N/A
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>Offsets 01 and 02 must be equal</li> </ul>

Dimensional Constraints	
<b>Base:</b>	Greater Than S1 + Top; Rqrd
<b>Left:</b>	Required
<b>Right:</b>	N/A
<b>Top:</b>	Required
<b>S1:</b>	Required
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

# Cardinal Shape Catalog

		Dimensional Constraints		
		<b>Base:</b>	Required	
		<b>Left:</b>	Required	
		<b>Right:</b>	N/A	
		<b>Top:</b>	N/A	
		<b>S1:</b>	Required	
		<b>S2:</b>	N/A	
Mirror Image	Possible Configurations			Shape Notes
				<ul style="list-style-type: none"> <li>S1 + Base = overall width</li> <li>Left = overall height</li> </ul>

		Dimensional Constraints		
		<b>Base:</b>	Required	
		<b>Left:</b>	Required	
		<b>Right:</b>	N/A	
		<b>Top:</b>	Less Than Base + S1; Required	
		<b>S1:</b>	Required	
		<b>S2:</b>	N/A	
Mirror Image	Possible Configurations			Shape Notes
				<ul style="list-style-type: none"> <li>S1 + Base = overall width</li> <li>Left = overall height</li> </ul>

# Cardinal Shape Catalog

		Dimensional Constraints	
		<b>Base:</b>	Required
		<b>Left:</b>	Required
		<b>Right:</b>	N/A
		<b>Top:</b>	N/A
		<b>S1:</b>	Required
		<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes	
		<ul style="list-style-type: none"> <li>Base + S1 = overall width</li> <li>Left = overall height</li> </ul>	

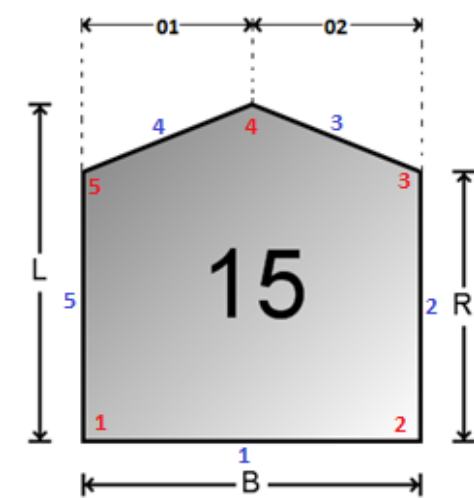
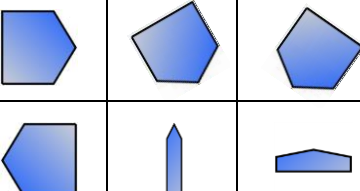
		Dimensional Constraints	
		<b>Base:</b>	Required
		<b>Left:</b>	Required
		<b>Right:</b>	N/A
		<b>Top:</b>	Less Than Base + S1; Required
		<b>S1:</b>	Required
		<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes	
		<ul style="list-style-type: none"> <li>Base + S1 = overall width</li> <li>Left = overall height</li> </ul>	



## Cardinal Shape Catalog

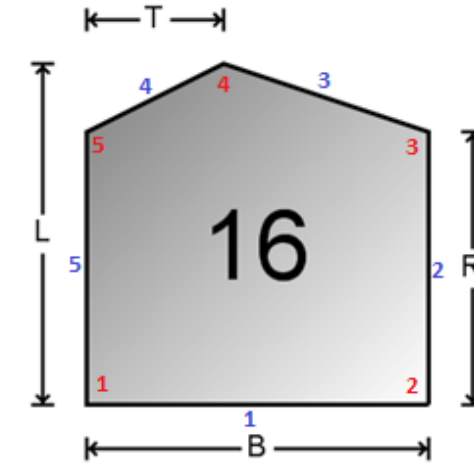
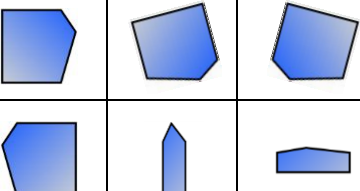
Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	N/A
<b>S1:</b>	N/A
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Offsets must be equal (<math>01</math> and <math>02 = \frac{1}{2}</math> the Base)</li> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	

Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	N/A
<b>S2:</b>	N/A








Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	








# Cardinal Shape Catalog

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

# Cardinal Shape Catalog

Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Less Than Right; Required	
<b>Right:</b>	Required	
<b>Top:</b>	Greater Than Base; Required	
<b>S1:</b>	N/A	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
	     	<ul style="list-style-type: none"> <li>Top = overall width</li> <li>Right = overall height</li> </ul>


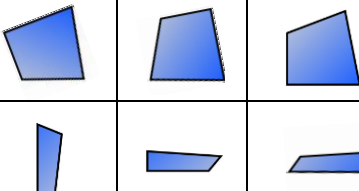
Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Required	
<b>Right:</b>	Less Than Left; Required	
<b>Top:</b>	Greater Than Base; Required	
<b>S1:</b>	N/A	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
	     	<ul style="list-style-type: none"> <li>Top = overall width</li> <li>Left = overall height</li> </ul>


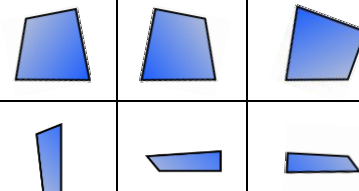
# Cardinal Shape Catalog

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

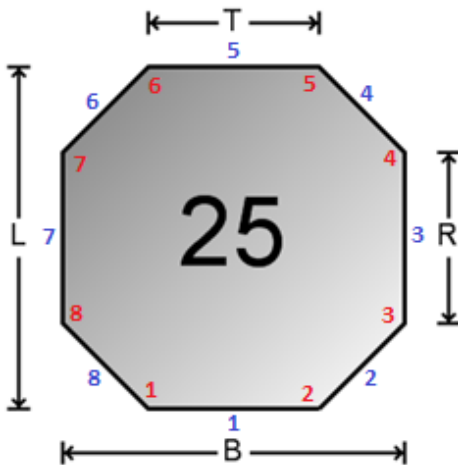



Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	Less Than Base; Required
	<b>S1:</b>	N/A
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

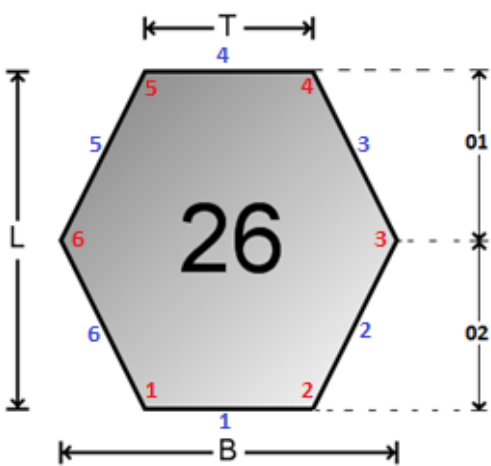



# Cardinal Shape Catalog

Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Required	
<b>Right:</b>	Less Than Left; Required	
<b>Top:</b>	Greater Than Base; Required	
<b>S1:</b>	N/A	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Top = overall width</li> <li>Left = overall height</li> </ul>








Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Less Than Right; Required	
<b>Right:</b>	Required	
<b>Top:</b>	Greater Than Base; Required	
<b>S1:</b>	N/A	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Top = overall width</li> <li>Right = overall height</li> </ul>








## Cardinal Shape Catalog

			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	Less Than Left; Required
			<b>Top:</b>	Less Than Base; Required
			<b>S1:</b>	N/A
Possible Configurations			<b>S2:</b>	N/A
			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	








			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	N/A
			<b>Top:</b>	Less Than Base; Required
			<b>S1:</b>	N/A
Possible Configurations			<b>S2:</b>	N/A
			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>Offsets must be equal (O1 and O2 = ½ the Left)</li> </ul>	








# Cardinal Shape Catalog

Dimensional Constraints		
<b>Base:</b>	Greater Than Top + S1; Rqrd	
<b>Left:</b>	Greater Than Right; Required	
<b>Right:</b>	Greater Than or Equal to S2; Rq	
<b>Top:</b>	Required	
<b>S1:</b>	Required	
<b>S2:</b>	Required	
Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	  	

Dimensional Constraints		
<b>Base:</b>	Greater Than Top + S1; Rqrd	
<b>Left:</b>	Greater Than or Equal to S2; Rq	
<b>Right:</b>	Greater Than Left; Required	
<b>Top:</b>	Required	
<b>S1:</b>	Required	
<b>S2:</b>	Required	
Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>
	  	

# Cardinal Shape Catalog

Dimensional Constraints		
<b>Base:</b>	Greater Than Top + S1; Rqrd	
<b>Left:</b>	Less Than Right; Required	
<b>Right:</b>	Required	
<b>Top:</b>	Required	
<b>S1:</b>	Required	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>
	  	





Dimensional Constraints		
<b>Base:</b>	Greater Than Top + S1; Rqrd	
<b>Left:</b>	Required	
<b>Right:</b>	Less Than Left; Required	
<b>Top:</b>	Required	
<b>S1:</b>	Required	
<b>S2:</b>	N/A	
Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	  	



# Cardinal Shape Catalog

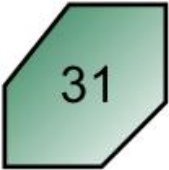



Dimensional Constraints	
<b>Base:</b>	Less Than Top + S1; Required
<b>Left:</b>	Less Than Right + S2; Required
<b>Right:</b>	Required
<b>Top:</b>	Required
<b>S1:</b>	Required
<b>S2:</b>	Required

Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>S1 + Top = overall width</li> <li>Right + S2 = overall height</li> </ul>

Dimensional Constraints	
<b>Base:</b>	Less Than Top + S1; Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left + S2; Required
<b>Top:</b>	Required
<b>S1:</b>	Required
<b>S2:</b>	Required








  

Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Top + S1 = overall width</li> <li>Left + S2 = overall height</li> </ul>

# Cardinal Shape Catalog








Dimensional Constraints	
<b>Base:</b>	Greater Than $S1 + S2$ ; Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	N/A
<b>S1:</b>	Required
<b>S2:</b>	Required

Mirror Image	Possible Configurations	Shape Notes
	     	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

Dimensional Constraints	
<b>Base:</b>	Greater Than $S1 + S2$ ; Required
<b>Left:</b>	Less Than Right; Required
<b>Right:</b>	Required
<b>Top:</b>	N/A
<b>S1:</b>	Required
<b>S2:</b>	Required

Mirror Image	Possible Configurations	Shape Notes
	     	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>

# Cardinal Shape Catalog



Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	Less Than Base + S1; Required
	<b>S1:</b>	Required
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base + S1 = overall width</li> <li>Right = overall height</li> </ul>

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	Less Than Base + S1; Required
	<b>S1:</b>	Required
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base + S1 = overall width</li> <li>Left = overall height</li> </ul>

## Cardinal Shape Catalog



Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	Less Than Base; Required
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	

Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	N/A
<b>S2:</b>	N/A








  

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>Offsets 01 and 02 must be equal</li> </ul>
	

# Cardinal Shape Catalog








Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Required
<b>Right:</b>	Less Than Left; Required
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	Less Than Right; Required
<b>S2:</b>	N/A

Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
	  	

Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Less Than Right; Required
<b>Right:</b>	Required
<b>Top:</b>	Less Than Base; Required
<b>S1:</b>	Less Than Left; Required
<b>S2:</b>	N/A

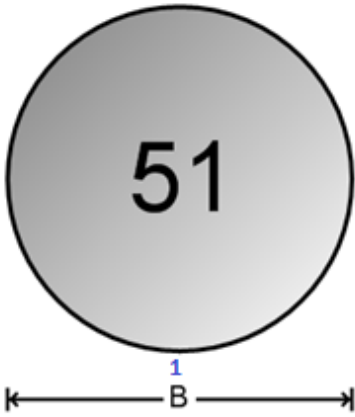
  

Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>
	  	

## Cardinal Shape Catalog

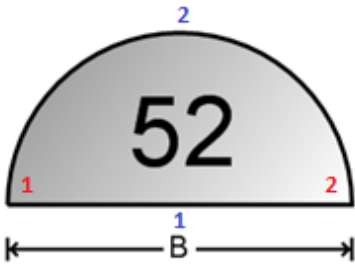
Dimensional Constraints	
<b><u>Base</u>:</b>	Required
<b><u>Left</u>:</b>	N/A
<b><u>Right</u>:</b>	N/A
<b><u>Top</u>:</b>	N/A
<b><u>S1</u>:</b>	N/A
<b><u>S2</u>:</b>	N/A

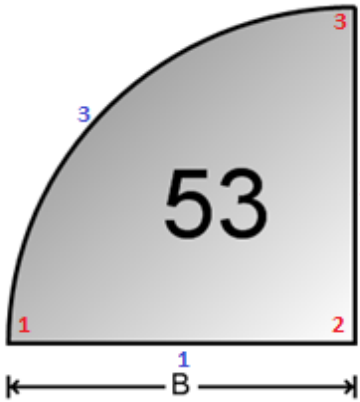



Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>• Base = overall width</li> <li>• Base = overall height</li> <li>• Shape is a perfect circle</li> </ul>

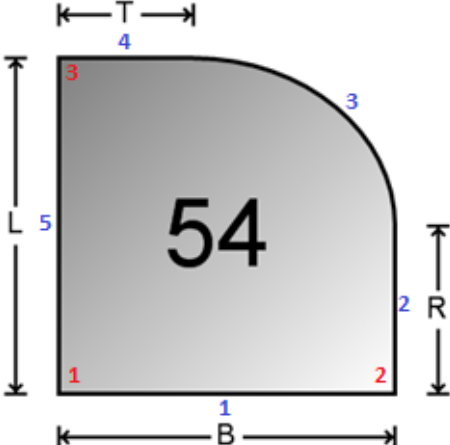
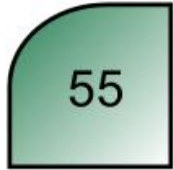




Dimensional Constraints	
<b><u>Base</u>:</b>	Required
<b><u>Left</u>:</b>	N/A
<b><u>Right</u>:</b>	N/A
<b><u>Top</u>:</b>	N/A
<b><u>S1</u>:</b>	N/A
<b><u>S2</u>:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>• Base = overall width</li> <li>• ½ Base = overall height</li> <li>• Shape is a perfect half-round</li> </ul>

# Cardinal Shape Catalog








			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	N/A
			<b>Right:</b>	N/A
			<b>Top:</b>	N/A
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Base = overall height</li> <li>Shape is a perfect quarter-round</li> </ul>	

			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	Less Than Left; Required
			<b>Top:</b>	Less Than Base; Required
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Mirror Image	Possible Configurations		Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>The following equation must be satisfied: <ul style="list-style-type: none"> <li><math>L - R = B - T</math></li> </ul> </li> </ul>	
				

# Cardinal Shape Catalog







Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Less Than Right; Required	
<b>Right:</b>	Required	
<b>Top:</b>	Less Than Base; Required	
<b>S1:</b>	N/A	
<b>S2:</b>	N/A	

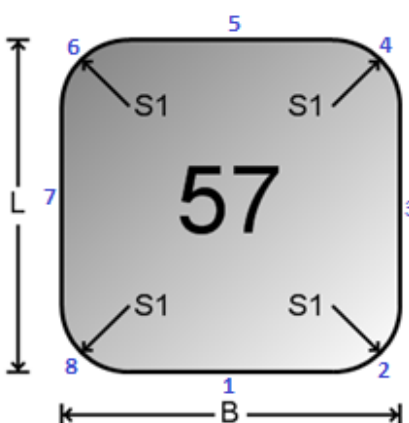



Mirror Image	Possible Configurations	Shape Notes
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> <li>The following equation must be satisfied: <ul style="list-style-type: none"> <li><math>R - L = B - T</math></li> </ul> </li> </ul>
	  	

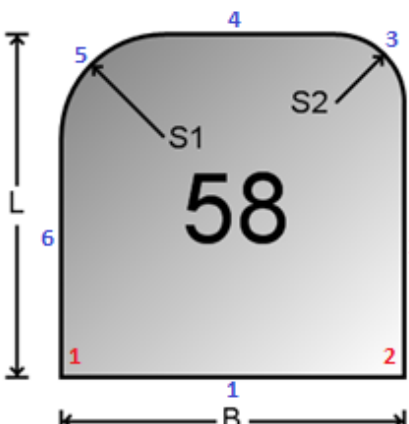
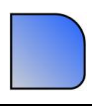
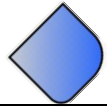




Dimensional Constraints		
<b>Base:</b>	Required	
<b>Left:</b>	Greater Than S1; Required	
<b>Right:</b>	N/A	
<b>Top:</b>	N/A	
<b>S1:</b>	2 * S1 Less Than Base; Required	
<b>S2:</b>	N/A	

Possible Configurations	Shape Notes
  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>
  	



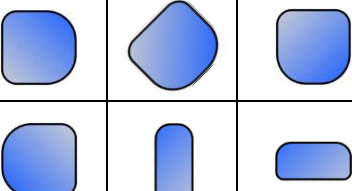
			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Greater Than $2 * S1$ ; Required
			<b>Right:</b>	N/A
			<b>Top:</b>	N/A
			<b>S1:</b>	$2 * S1$ Less Than Base; Required
			<b>S2:</b>	N/A
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	

			Dimensional Constraints	
			<b>Base:</b>	Greater Than $S1 + S2$ ; Required
			<b>Left:</b>	Required
			<b>Right:</b>	N/A
			<b>Top:</b>	N/A
			<b>S1:</b>	Less Than Left; Required
			<b>S2:</b>	Less Than Left; Required
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	
				

## Cardinal Shape Catalog

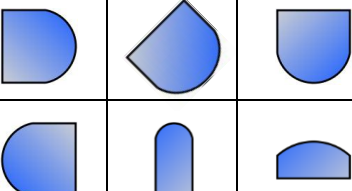
Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Greater Than S1 + S2; Required
<b>Right:</b>	N/A
<b>Top:</b>	N/A
<b>S1:</b>	2 * S1 Less Than Base; Required
<b>S2:</b>	2 * S2 Less Than Base; Required

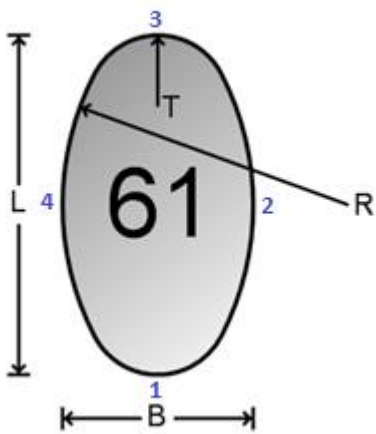

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>

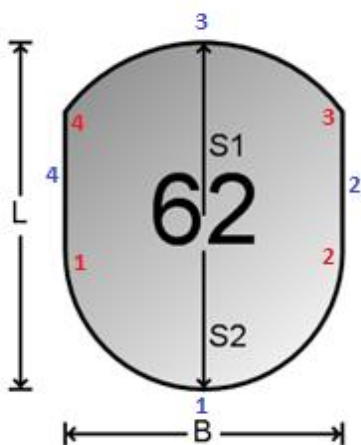
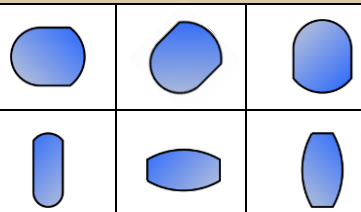
Dimensional Constraints	
<b>Base:</b>	Less Than 2 * S1; Required
<b>Left:</b>	Less Than Right + S1; Required
<b>Right:</b>	Less Than Left (Optional)
<b>Top:</b>	N/A
<b>S1:</b>	Required
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>(Base is zero) <math>B = \text{SQR}(4 * (2 * S1 * (L - R) - (L_R)^2))</math></li> <li>(S1 is zero) <math>S1 = \frac{B^2}{4} + \frac{(L-R)^2}{2 * (L-R)}</math></li> <li>(Left is zero) <math>L = \text{Part 1} - \text{Part 2}</math> <ul style="list-style-type: none"> <li>Part 1 = <math>S1 + R</math>; Part 2 = <math>.5 * \text{SQR}(4 * (S1 + R)^2 - (B^2 + 4 * R^2 + 8 * S1 * R))</math></li> </ul> </li> <li>(Right is zero) <math>R = \text{Part 1} + L - S1</math> <ul style="list-style-type: none"> <li>Part 1 = <math>.5 * \text{SQR}(4 * (S1 - L)^2 - (B^2 + 4 * L^2 - 8 * S1 * L))</math></li> </ul> </li> <li>Base = overall width; Left = overall height</li> </ul>

# Cardinal Shape Catalog

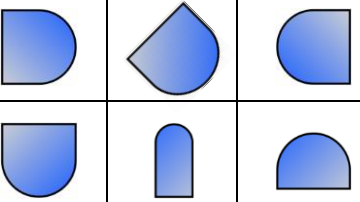
			Dimensional Constraints	
			<b>Base:</b>	Less Than 2 * Right; Required
			<b>Left:</b>	Required
			<b>Right:</b>	Greater Than Top; Required
			<b>Top:</b>	Less Than 1/2 * Base; Required
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width; Left = overall height</li> <li>The overall height (L) can be found using the following equation: <ul style="list-style-type: none"> <li><math display="block">L = 2 * \left[ \sqrt{(R - T)^2 - \left(R - \frac{B}{2}\right)^2} + T \right]</math></li> </ul> </li> <li>The overall Base can be found using the following equation: <ul style="list-style-type: none"> <li><math display="block">B = 2 * \left[ R - \sqrt{((R - T)^2 - \left(\frac{L}{2} - T\right)^2)} \right]</math></li> </ul> </li> </ul>	

			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Required
			<b>Right:</b>	N/A
			<b>Top:</b>	N/A
			<b>S1:</b>	2*S1 >= Base; Required
			<b>S2:</b>	2*S2 >= Base; Required
Possible Configurations			Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	

# Cardinal Shape Catalog

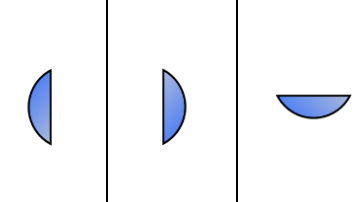
Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Greater Than $\frac{1}{2} * \text{Base}$ ; Rqrd
<b>Right:</b>	Less Than Left (Optional)
<b>Top:</b>	N/A
<b>S1:</b>	N/A
<b>S2:</b>	N/A

Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>The Right leg dimension (R) may be found using the following equation: <ul style="list-style-type: none"> <li><math>R = L - \frac{B}{2}</math></li> </ul> </li> </ul>

Dimensional Constraints	
<b>Base:</b>	Required
<b>Left:</b>	Less than Right; Required
<b>Right:</b>	Required
<b>Top:</b>	N/A
<b>S1:</b>	N/A
<b>S2:</b>	N/A

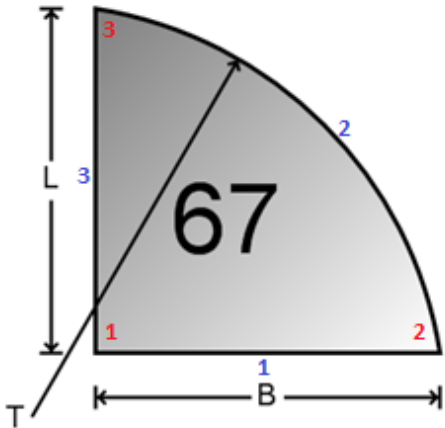
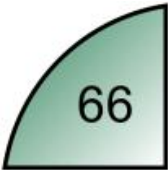



Possible Configurations	Shape Notes
	<ul style="list-style-type: none"> <li>Base = overall width; Left = overall height</li> <li>(Find the Base) <math>B = \sqrt{(8 * L * R - 4 * L^2)}</math></li> <li>(Find the Left) <math>L = R - \sqrt{\frac{4 * R^2 - B^2}{2}}</math></li> <li>(Find the Right) <math>R = \frac{B^2 + (4 * L^2)}{8 * L}</math></li> </ul>

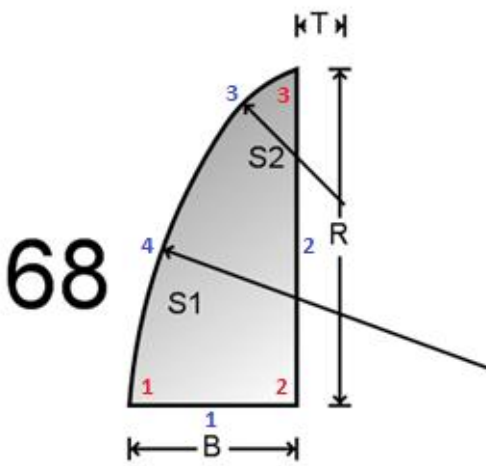




# Cardinal Shape Catalog

			Dimensional Constraints	
			<b>Base:</b>	Required
			<b>Left:</b>	Greater Than Top; Required
			<b>Right:</b>	Greater Than Left; Required
			<b>Top:</b>	Less Than Right; Required
			<b>S1:</b>	Required
			<b>S2:</b>	N/A
Possible Configurations		Shape Notes		
			<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> <li>(Find the Base) <math>B = 2 * [\text{SQRT}((r-l-s1)^2 - (r-t)^2) + \text{SQRT}(t^2 - s1^2)]</math></li> </ul>	

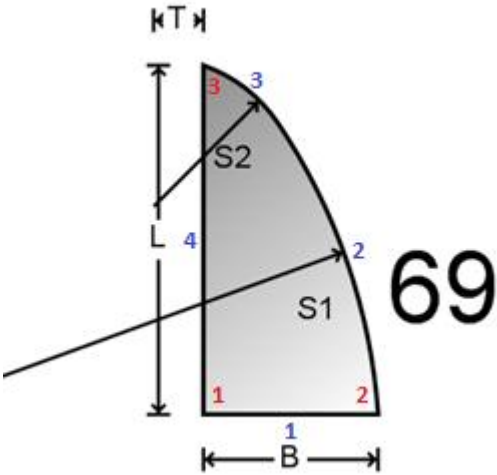

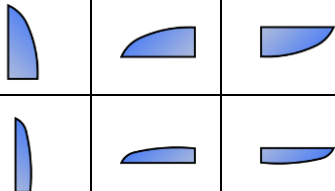
			Dimensional Constraints	
			<b>Base:</b>	Less Than Top; Required
			<b>Left:</b>	N/A
			<b>Right:</b>	Less Than Top; Required
			<b>Top:</b>	Required
			<b>S1:</b>	N/A
			<b>S2:</b>	N/A
Mirror Image	Possible Configurations		Shape Notes	
			<ul style="list-style-type: none"> <li>Base = overall width; Right = overall width</li> <li>Dimensions <u>must</u> satisfy the following equations to avoid shape bulging: <ul style="list-style-type: none"> <li><math>B \leq \sqrt{T^2 - (T - R)^2}</math></li> <li><math>R \leq \sqrt{T^2 - (T - B)^2}</math></li> </ul> </li> </ul>	

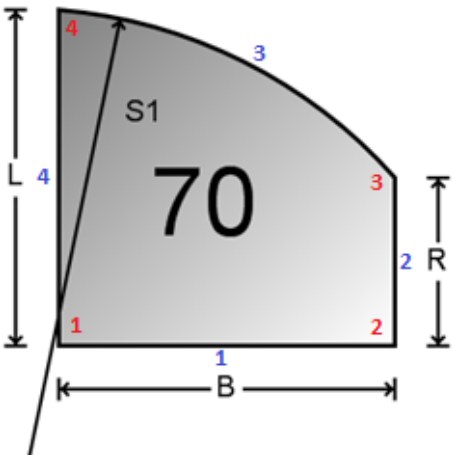
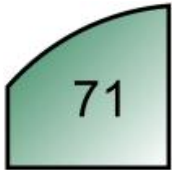
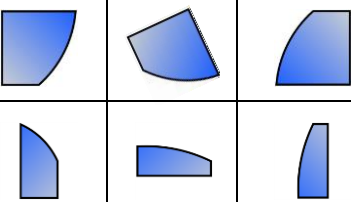
# Cardinal Shape Catalog

		Dimensional Constraints	
		<b>Base:</b>	Less Than Top; Required
		<b>Left:</b>	Less Than Top; Required
		<b>Right:</b>	N/A
		<b>Top:</b>	Required
		<b>S1:</b>	N/A
		<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes	
	  	<ul style="list-style-type: none"> <li>Base = overall width; Left = overall height</li> <li>Dimensions <u>must</u> satisfy the following equations to avoid shape bulging: <ul style="list-style-type: none"> <li><math>B \leq \sqrt{T^2 - (T - L)^2}</math></li> <li><math>L \leq \sqrt{T^2 - (T - B)^2}</math></li> </ul> </li> </ul>	

		Dimensional Constraints	
		<b>Base:</b>	Less Than S1; Required
		<b>Left:</b>	N/A
		<b>Right:</b>	> S2, < S1; Required
		<b>Top:</b>	Required
		<b>S1:</b>	Greater Than S2; Required
		<b>S2:</b>	Required
Mirror Image	Possible Configurations	Shape Notes	
	  	<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Right = overall height</li> </ul>	

# Cardinal Shape Catalog

		Dimensional Constraints	
		<b>Base:</b>	Less Than S1; Required
		<b>Left:</b>	> S2, < S1; Required
		<b>Right:</b>	N/A
		<b>Top:</b>	Required
		<b>S1:</b>	Greater Than S2; Required
		<b>S2:</b>	Required
Mirror Image	Possible Configurations	Shape Notes	
		<ul style="list-style-type: none"> <li>Base = overall width</li> <li>Left = overall height</li> </ul>	

		Dimensional Constraints	
		<b>Base:</b>	Required
		<b>Left:</b>	Required
		<b>Right:</b>	Less Than Left; Required
		<b>Top:</b>	N/A
		<b>S1:</b>	>= Base; Required
		<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes	
		<ul style="list-style-type: none"> <li>Base = overall width; Left = overall height</li> <li>Dimensions <u>must</u> satisfy the following equations to avoid shape bulging: <ul style="list-style-type: none"> <li><math>S1 \geq L - R</math></li> <li><math>B \leq \sqrt{S1^2 - (S1 - L + R)^2}</math></li> </ul> </li> </ul>	

# Cardinal Shape Catalog

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Less Than Right; Required
	<b>Right:</b>	Required
	<b>Top:</b>	N/A
	<b>S1:</b>	$\geq$ Base; Required
	<b>S2:</b>	N/A
Mirror Image	Possible Configurations	Shape Notes
		<ul style="list-style-type: none"> <li>Base = overall width; Right = overall height</li> <li>Dimensions <u>must</u> satisfy the following equations to avoid shape bulging: <ul style="list-style-type: none"> <li><math>S1 \geq R - L</math></li> <li><math>B \leq \sqrt{S1^2 - (S1 - R + L)^2}</math></li> </ul> </li> </ul>

Dimensional Constraints		
	<b>Base:</b>	Required
	<b>Left:</b>	Required
	<b>Right:</b>	Less Than Left; Required
	<b>Top:</b>	N/A
	<b>S1:</b>	$\geq \frac{1}{2}$ Base; Required
	<b>S2:</b>	N/A
Possible Configurations	Shape Notes	
	<ul style="list-style-type: none"> <li>Base = overall width; Left = overall height</li> <li>Dimensions <u>must</u> satisfy the following equation to avoid a "keyhole" condition: <ul style="list-style-type: none"> <li><math>S1 \geq L - R</math></li> </ul> </li> </ul>	



