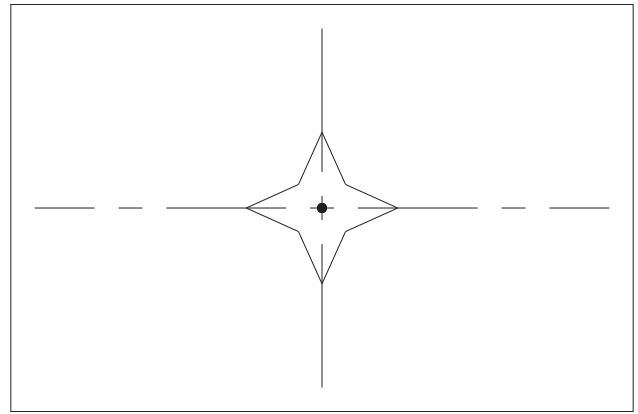


All ten questions in this questions and answer exercise relate to the scaling function. Although many controls do offer scaling function (usually as an option), the actual machine shop applications are not too common. However, it is well worth understanding how this function works, in case a certain job can benefit from it.

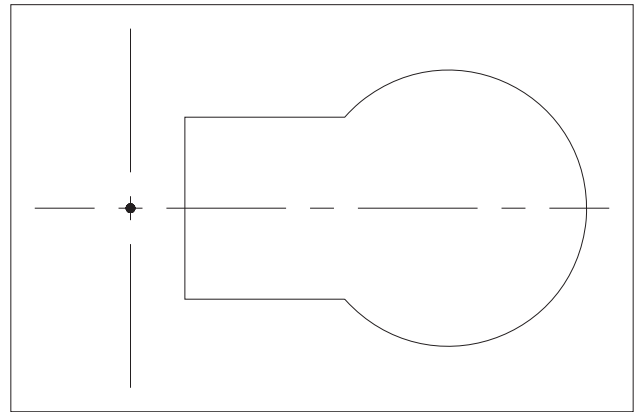
#	Question	Answer
1	If the scaled object becomes SMALLER than the original, the result is called ...	
2	If the scaled object becomes LARGER than the original, the result is called ...	
3	True or false? Scaling is only visual - it does <b>not</b> affect the size of actual part.	
4	If the part width is 150 mm, and the part is scaled to 80% of its original size, what will the scaled width be?	
5	If an existing 5 inch hole is scaled to the diameter of 6 inches, what is the scaling factor?	
6	If an existing 78 mm part width is scaled to the width of 70 mm, what is the scaling factor?	
7	A cutter radius offset D61 has a stored amount of 15 mm. What will that amount be when scaling factor of three is applied?	
8	Peck drill depth in G83 fixed cycle is programmed as Q0.45. When a scaling factor of 0.75 is applied, what will the Q-value be?	
9	Name the G-codes for scaling	Scaling ON =  Scaling OFF =
10	Specify the program format for scaling function	

The dot represent the scaling point.  
Approximate sketch is acceptable.

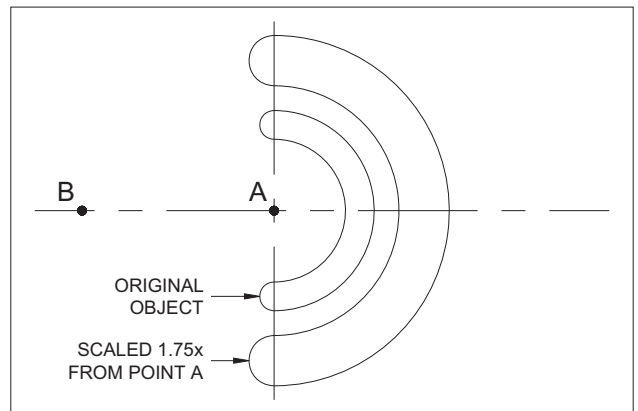
11. Based on the illustration at right, draw the object as it will look like when magnified two times.



12. Based on the illustration at right, draw the object as it will look like when reduced two times.



13. Based on the illustration at right, draw the object as it will look like when the scaling point is changed from position *A* to position *B*.



14. Based on the illustration at right, draw the object as it will look like when the scaling point is changed from position *C* to position *D*.

