

Scaling Function Q+A

➡ Answers to questions:

1. An object that has been made SMALLER by scaling has been reduced, and the result is called REDUCTION
2. An object that has been made LARGER by scaling has been enlarged (magnified), and the result is called ENLARGEMENT - or more commonly - MAGNIFICATION
3. **FALSE** - scaling is a process of reducing or magnifying the **PHYSICAL** size of the original object
4. 150 mm is equivalent to 100%, therefore 80% of 150 = $150 \times 80/100 = 120$ mm
5. 5 inches is equivalent to 100% and the scaling factor is 1
6 inches is, therefore $6 / 5 = 1.2$, which is the scaling factor
6. The 78 mm width is equivalent to 100% and the scaling factor is 1,
and $70 / 78 = 0.897436$, which is the scaling factor.
7. The cutter radius offset will remain as is - 15 mm in the example. Scaling function is ineffective.
8. The peck drill depth Q will remain as is - 0.45 in the example. Scaling function is ineffective.
9. Scaling ON = G51 (Scaling mode active) Scaling OFF = G50 (Scaling mode cancel)
10. The program format for most Fanuc controls is

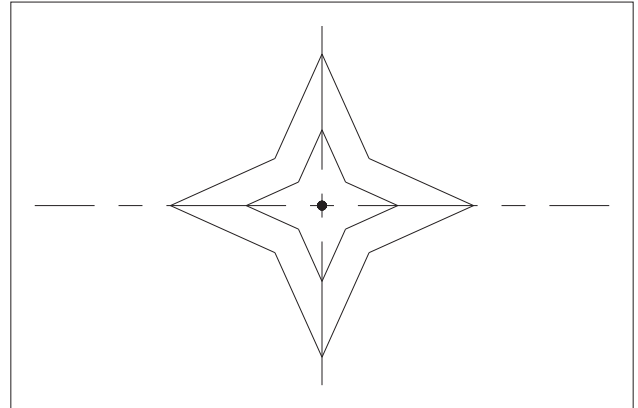
G51 I... J... K... P...

👉 where:

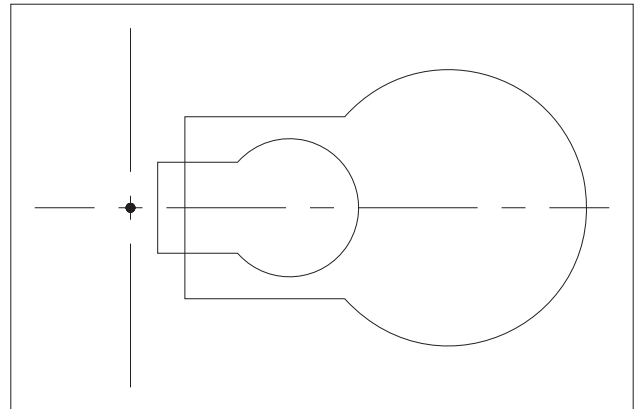
I = Absolute X coordinate of the scaling center
J = Absolute Y coordinate of the scaling center
K = Absolute Z coordinate of the scaling center
P = Scaling factor (< 1 or > 1)

➡ Study the four illustrations relating to **Questions 11 to 14**.

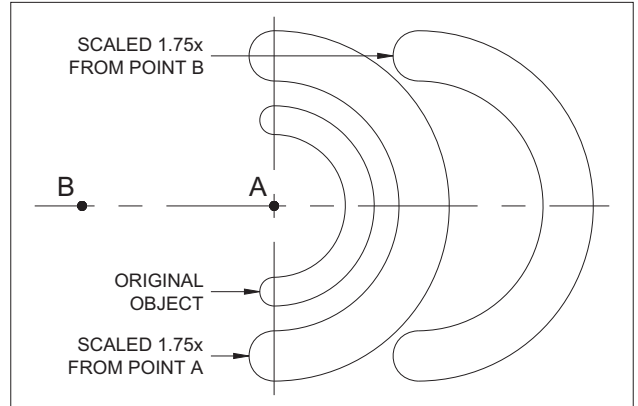
11. Answer in the form of illustration:



12. Answer in the form of illustration:



13. Answer in the form of illustration:



14. Answer in the form of illustration:

