40-02 Datum Shift Q+A

The objective of this brief Q+A exercise is to identify main issues related to datum shift.

#	Question	Answer
1	Describe methods available to shift a datum point, either through the program or during setup	
2	Define G53 command and explain its application	
3	Which command cancels G53?	
4	What is the purpose of an old G92 command on machining centers or G50 on lathes?	

5	Re-write the following program by removing G52. Make sure the functionality of the program remains the same. **N1 G20** **N2 G17 G40 G80** **N3 G90 G54 G00 X2.5 Y3.0 S1200 M03** **N4 G43 Z1.0 H01 M08** **N5 G52 X2.5 Y3.0** **N6 G99 G81 X1.0 Y-1.0 R0.1 Z-0.5 F8.0** **N7 Y1.0** **N8 X-1.0** **N9 Y-1.0** **N10 G80 Z1.0 M09** **N11 G52 X0 Y0** **N12 G28 Z1.0 M05** **N13 M01**	
6	Describe the general purpose of the G10 command	
7	When G10 is used for work offset input, what is the block structure? Provide an example	
8	Describe situations, where the local coordinate system will benefit the program	