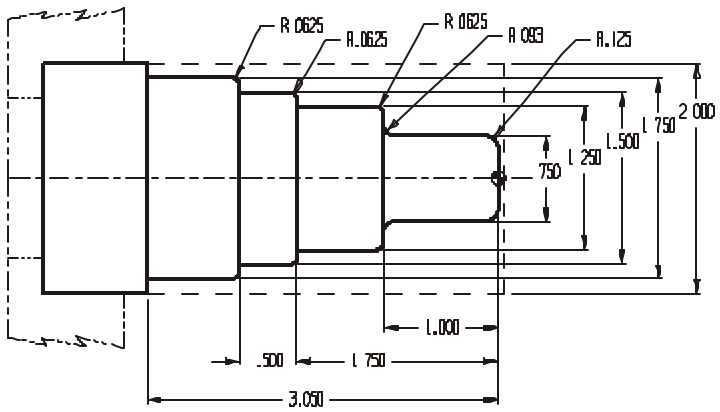
1 Tests comprehension of motion types

Name: Date: Score (100 possible):

Instructions: This is the first complete program you will be working on. Though it will not require that you actually write tan entire program on your own (you'll be simply filling in the blanks), it will stress much of what is involved with the programming task.
First, study the print and process sheet to gain an understanding of the operations to be performed. *Second*, use the tool path drawings to fill in the coordinate sheet. Use 0.1 inch approach for clearance positions. Note that the point numbering on the tool path sheets does not perfectly match the sequential order of movements. You're simply documenting the coordinates for all locations needed in the program. *Third*, fill in the blanks for the program provided. You'll be filling in motion commands, including appropriate G code, X and/or Z coordinates, and speeds & feeds.

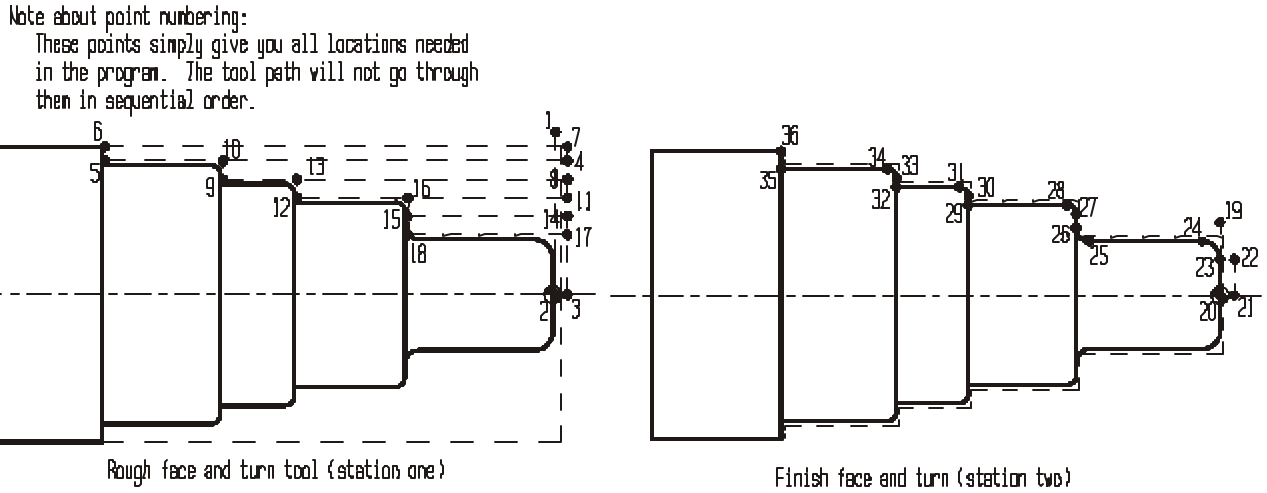
Print:



Process:

Seq.	Operation description	Tool	Station	Speed	Feedrate
1	Rough face & turn. Leave 0.03 stock on side (0.06 on diameter) and 0.005 on faces.	80 degree diamond	1	600 sfm	0.012 ipr
2	Finish face & turn	55 degree diamond	2	700 rpm	0.006 ipr

Roughing and finishing tool paths:



Coordinate sheet:

#	X	Z
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		

O0001 (Program number)

(Rough face and turn tool)
N005 T0101 M41
N010 G96 S____ M03
N015 G___ X_____ Z_____ M08 (1)
N020 G___ _____ F____ (2)
N025 ____ _____ (3)
N030 _____ (4)
N035 ____ _____ (5)
N040 _____ (6)
N045 ____ _____ (7)
N050 _____ (8)
N055 ____ _____ (9)
N060 _____ (10)
N065 ____ _____ (4)
N070 _____ (11)
N075 ____ _____ (12)
N080 _____ (13)
N085 ____ _____ (8)
N090 _____ (14)
N095 ____ _____ (15)
N100 _____ (16)
N105 ____ _____ (11)
N110 _____ (17)
N115 ____ _____ (18)
N120 _____ (15)
N125 ____ _____ (14)
N130 G00 X6.0 Z5.0
N135 M01

(Finish face and turn)
N140 T0202 M42
N145 G96 S____ M03
N150 ____ _____ _____ (19)
N155 ____ _____ _____ (20)
N160 ____ _____ (21)
N165 _____ (22)
N170 ____ _____ (23)
N175 ____ _____ _____ _____ (24)
N180 ____ _____ (25)

N185 ____ _____ _____ _____ (26)
N190 ____ _____ (27)
N195 ____ _____ _____ _____ (28)
N200 ____ _____ (29)
N205 _____ (30)
N210 ____ _____ _____ _____ (31)
N215 ____ _____ (32)
N220 _____ (33)
N225 ____ _____ _____ _____ (34)
N230 ____ _____ (35)
N235 _____ (36)
N240 G00 X6.0 Z5.0
N245 M30