

Answers to Exercises

If you are attending a class that uses this text, your instructor may ask you not to look at these answers prior to submitting your work. (Each exercise can be removed from this text without removing any content.) On the other hand, if you are reading this text on your own, you can use these answers to check your work.

Exercise 1: Basic Machining Practices

- | | |
|--|--|
| 1) 2.25 long by 2.25 in diameter | 13) a: no, b: yes, c: deviation from target (mean) value is 0.0007 |
| 2) 0.125 +/-0.003 | 14) a: yes, b: no, c: deviation from target (mean) value is 0.0002 |
| 3) 1.0000 | 15) a: no, b: yes, c: deviation from target (mean) value is 0.0007 |
| 4) 316 stainless steel | 16) a: no, b: yes, c: deviation from target (mean) value is 0.004 |
| 5) yes | 17) a: yes, b: no, c: deviation from target (mean) value is 0.001 |
| 6) true | 18) a: yes, b: no, c: deviation from target (mean) value is 0.003 |
| 7) +/- 0.003 | 19) true |
| 8) mv: 0.125, hl: 0.128, ll: 0.122 | 20) true |
| 9) mv: 2.250, hl: 0.251, ll: 0.249 | |
| 10) mv: 1.0000, hl: 1.0005, ll: 0.9995 | |
| 11) true | |
| 12) Revision "A" | |

Exercise 2: What Does A CNC Turning Center Do?

- | | |
|-----------------------|---|
| 1) c. an engine lathe | 11) true |
| 2) true | 12) b. turning |
| 3) b. shaft work | 13) a. facing |
| 4) a. bar work | 14) c. boring |
| 5) c. chucking work | 15) true |
| 6) false | 16) false |
| 7) true | 17) true |
| 8) b. 0.005 inch | 18) b. when the surface is getting close to a tolerance limit |
| 9) d. 0.040 inch | 19) false |
| 10) false | 20) true |

Exercise 3: General Flow Of The CNC Process

- | | |
|-------------------------|---|
| 1) d. All of the above. | 3) One way to load a program is to actually type it using the machine's keyboard and display screen. The other is to use some |
| 2) d. All of the above. | |