**Tolerances in Engineering Drawings PRE-ASSESSMENT**   
This assessment is to be taken before completing the Tolerances in Engineering Drawings activity.

Student Institute ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Faculty Institute ID\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Why are tolerances needed on a drawing? (1 point)
2. To make drawings more complex.
3. Because manufacturing processes do not result in perfect sizes or locations of part features.
4. To show the theoretically perfect size or location of a part feature.
5. To show the surface finish characteristics of a part feature.
6. What happens to a part that measures slightly larger or smaller than the specified tolerance? (1 point)
7. The part is sent to the scrap pile
8. If possible, the part is reworked.
9. The part is shipped with the hope that nobody will notice
10. Answers A or B
11. What are the limits of size for a 3.00 ±.05 dimension? (1 point)
12. 3.00 – 3.05
13. 2.95 – 3.00
14. 2.95 – 3.05
15. None of the above
16. What is the total tolerance of a 5.255 ±.005 dimension? (1 point)
17. .010
18. .005
19. 5.260
20. 5.255
21. What are the limits of size for a 5.000 dimension if the tolerance note is shown as follows: (1 point)

NOTES: UNLESS OTHERWISE SPECIFIED

1. TOLERANCES: X.XX ±.03

X.XXX ±.010

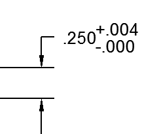
A. 5.000 – 5.003

B. 4.990 – 5.030

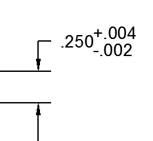
C. 4.970 – 5.010

D. 4.990 – 5.010

1. Which type of tolerance is shown in the following dimension? (1 point)



1. Bilateral
2. Limit
3. Unilateral
4. Diameter
5. What is the total tolerance of the following dimension? (1 point)



1. .254
2. .006
3. .002
4. .248
5. What is the total tolerance for the following dimension? (1 point)



1. .502
2. .250
3. .006
4. .004
5. Which type of tolerance is shown in the following dimension? (1 point)



1. Bilateral
2. Limit
3. Unilateral
4. Diameter
5. If using a general note to specify tolerances, which dimension would typically have the smallest tolerance? (1 point)
6. 4.0
7. 4.12
8. 4.005
9. 4.1245