

# Converting Fractions and Metrics to Decimals

Points earned \_\_\_\_\_/24

Name \_\_\_\_\_

**Introduction:** When machining and precision measuring it is often necessary to work in thousandths of an inch 1/1000 or .001. There are 1000 equal measurements in a linear inch when measuring to "thousandths". If you were to measure in 16ths (1/16") or .062, you would skip over 63 measurements before reaching 1/8" or .125. Precision measuring is the foundation which all machining is based on.

**Directions:** The dimensions below are in random order. Convert the fractions and metric numbers into decimals. When conversions have been done you will need to arrange the dimensions in order form least to greatest. Drop any numbers past three decimal places.     .12345 = .123

Numerator ÷ Denominator = decimal

Metric number ÷ 25.4 = decimal for metric (millimeters)

**25.4mm=1" constant**

Examples: 3/8" = 3 ÷ 8 = .375

18mm ÷ 25.4mm = .7086614 = .708

1/2"    5/8"    7/32"    9mm    22mm    3/16"    9/64"    3/4"    17mm    23mm    15/16"    31/64"  
 6mm    9/16"    1/8"    1/4"    4mm    11mm    31/32"    13/16"    13mm    13/32"    7/64"    11/16"

- |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|
| 1.  | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  |
| 8.  | 9.  | 10. | 11. | 12. | 13. | 14. |
| 15. | 16. | 17. | 18. | 19. | 20. | 21. |
| 22. | 23. | 24. |     |     |     |     |