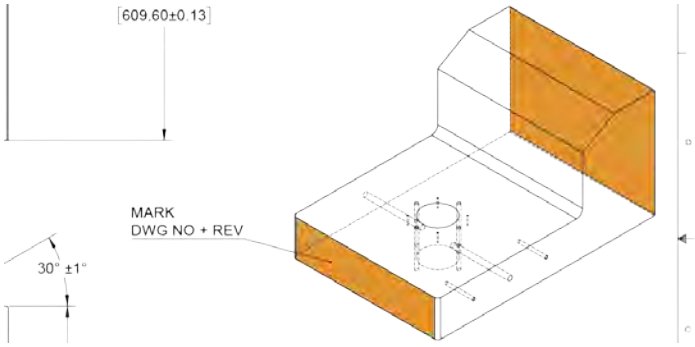
MEASUREMENTS: MEASUREMENT MATH

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

This course is designed to provide inspectors and beginning engineers with an overview of the fundamental concepts required to better understand the measurement process. The course begins with an overview of the basic two-dimensional geometry of measurements, followed by an introduction to the common mathematical formulae that may be necessary for proper part inspection.

Credit Hours **2**

Learning Objectives

- Identify the two-dimensional geometry of measurements and their parts.
- Calculate the various mathematical formulae that may be necessary during inspection.
- Recognize how the two-dimensional geometry and measurement math apply to inspection.

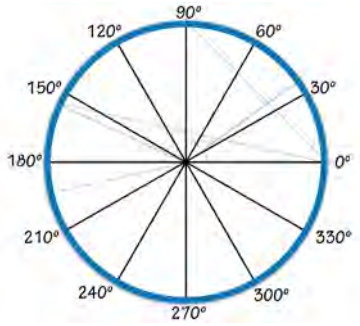
Table of Contents

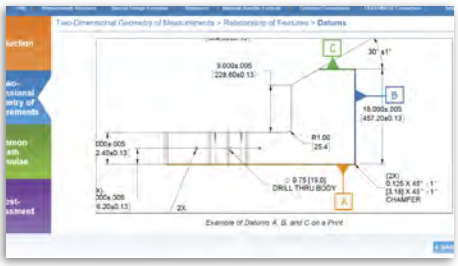
I. Two-Dimensional Geometry of Measurements

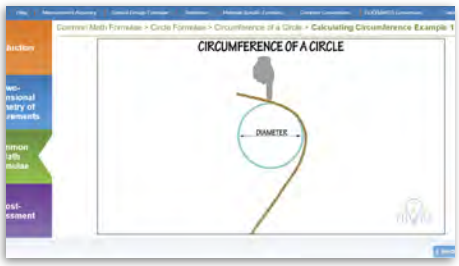
- **Point**
- **Line Segment**
- **Plane**
- **Circle**
  - o Degrees, Minutes, Seconds
  - o Diameter
  - o Radius
  - o Circumference
  - o Arc
- **Angles**
- **Triangles**
- **Relationship of Features**
  - o Datums
  - o Parallelism
  - o Perpendicularity
  - o Radius between Two Perpendicular Surfaces

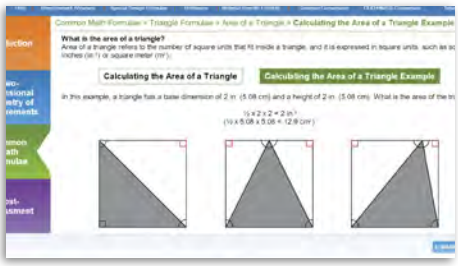
II. Common Math Formulae

- **Circle Formulae**
  - o Circumference of a Circle
  - o Area of a Circle
- **Triangle Formulae**
  - o Area of a Triangle
  - o The Pythagorean Theorem
  - o Sine, Cosine, and Tangent
- **Degrees, Minutes, Seconds Formulae**
  - o Adding Degrees, Minutes, Seconds
  - o Subtracting Degrees, Minutes, Seconds
  - o Converting DDD/MM/SS to Decimal Degrees
  - o Converting Decimal Degrees to DDD/MM/SS









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