

## MGF 1106 Chapter 10

Ch 10: Geometry, CH3: Logic, CH 2: Sets, CH11: Probability, CH 12: intro to Statistics

### Bullets

1. Points, Lines, Planes and Angles: definitions.  
Dimensions: points, Line, planes, 3D. No thickness. Infinite in length.  
Half-line, ray (half-line, end point not included. Line segment, 2 end points.  
Plane: 2d, flat surface, no thickness, no boundaries.  
Angles: two rays, common end point. Measure of angles: degrees.  
Classification of angles: complementary, supplementary. Acute, right, obtuse.  
Vertical angles. Proof.  
Parallel lines. Perpendicular lines.  
Parallels cut by a transversal. Relationship.  
  
Questions p-616-617.
2. Triangles: definition, three sides or 3 non-collinear points on a plane.  
Sum of interior angles: 180, proof. The exterior angle.  
Classification: equilateral, isosceles, scalene.  
Similar triangles. Definition. Examples. Problems p-622 and 623.  
Pythagorean Theorem.
3. Polygons, perimeter.  
\* Parallelogram, rhombus, rectangles, square, trapezoid. P631  
Pentagon, hexagon, heptagon etc. Sum of interior angles.  
Questions: p636.
4. Area and circumference.  
Area of rectangle, parallelogram, triangle, trapezoid and... circle.  
Examples
5. Volume and surface area:  
Cube, pyramid, cylinder, cone, sphere.  
Surface area: cube, rectangular solid, circular cylinder.  
Examples.