Geometry

Chapter 1 Study Guide

* 1. Patterns and Inductive reasoning

Describing Patterns

 Finding the pattern

 Determining what comes next

 Inductive Reasoning -

 Conjecture Statement based on observed patterns

 Counterexample

* 1. Points, Lines, and Planes

What are the undefined terms

Collinear

Coplanar

Segement

 Endpoints

Ray

 Initial point

 Opposite rays

Drawing

Intersect or intersection

* 1. Segments and Their Measures

Length between points

 Ruler Postulate $AB=\left|x\_{2}-x\_{1}\right|$

Segment Addition Postulate

 Given that B is between A, C then$ AB+BC=AC$

 Distance formula

 $AB=\sqrt{(x\_{2}-x\_{1})^{2}+(y\_{2}-y\_{1})^{2}}$

 Congruent Segments

 Two segments are congruent if they have the same distance

* 1. Angles and Their Measures

Naming Angles, vertex, sides

Protractor Ps

 How to measure an angle

 Angle Addition Postulate

 If P is in the interior of $∠$RST, Then $m∠RSP+m∠PST=m∠RST$

 Solving equations using angle addition

 Classifying angles by measure

 Acute Right Obtuse Straight

 Adjacent Angles

* 1. Segment and Angle Bisector

Midpoint

Segment Bisector

Midpoint Formula

 $M=(\frac{x\_{1}+x\_{2}}{2},\frac{y\_{1}+y\_{2}}{2})$

 Finding Coordinates of a Midpoint

 Finding Coordinates of an Endpoint

 Angle Bisector

 Equations with angle bisectors

 Double or half angles

* 1. Angle Pair Relationships

Vertical Angles

 All vertical angles are congruent

Linear Pair

 Two angles that form a straight angle

Complimentary Angles

 Add to 90. Equations on compliments

Supplementary Angles

 Add to 180. Equations on Supplements

* 1. Introduction to Perimeter, Circumference, and Area

Square

Rectangle

Triangle

Circle

Finding Area of a Border = Total – Opening

Finding area in a coordinate plane