Secondary 2 lesson 6.1

Introduction to Geometry

Objective:

Review Geometry Basics

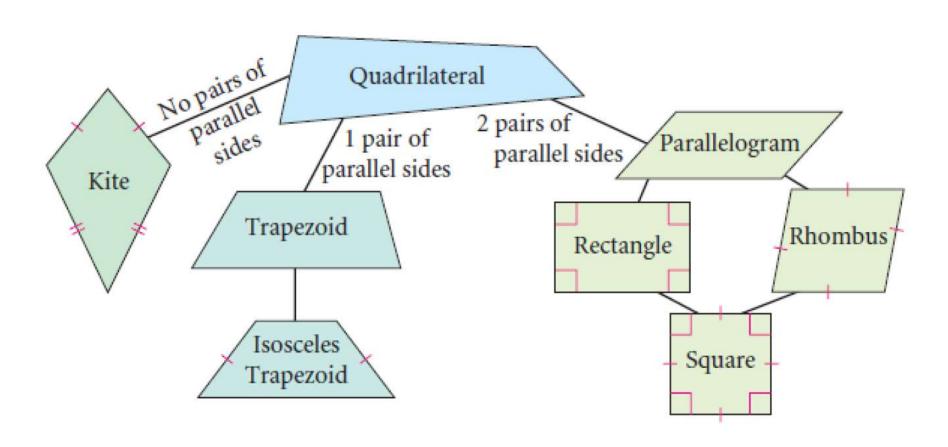
| TERM | SYMBOL | DEFINITION |
|---------------------|------------------------------|---|
| Point | . A | A location in space. It has no size, but is represented by a small dot and is named with a capital letter |
| Space | | The set of all points. |
| Line 72 | AB | A series of points extending in two opposite directions without end. (We consider lines to be straight.) Name a line using a lowercase letter or by using two points on the line and drawing a double-ended arrow above them. |
| Plane | ABC. ADC. DCB. etc. | A flat surface with no real thickness. (Think the surface of a piece of paper.) A plane contains many lines and extends without end, although when we draw it, we draw it as a skewed rectangle. Name the plane with a single capital letter or by naming 3 points on the plane. |
| Collinear points | | Points that lie on the same line. |
| Coplanar | | Refers to points or lines that are in the same plane. |

| TERM | SYMBOL | DEFINITION |
|--------------------|------------|---|
| Segment B | ĀB | A piece of a line. It contains two endpoints and all of the points on the line that lie between the endpoints. A segment is measurable because it begins and ends. We name segments by using the endpoints and putting a straight line above them. |
| Ray B | AB | A piece of a line that contains a single (one) endpoint, and all the points of the line that lie on one side of that endpoint. It goes on forever in one direction. We name rays by <i>listing the endpoint first</i> , then using another point on the ray. The symbol we place above is a single ended arrow pointing toward the right. |
| Opposite rays | (BAC) | Two collinear rays that have the same endpoint. Opposite rays always form a line. Name the same way as rays. |
| Parallel Lines | ABIICD | Two coplanar lines that will never intersect. We show two lines are parallel by naming the lines and putting a double bar between them. |
| Skew Lines | 1 | Skew lines are noncoplanar, so they are never parallel and never intersect. |
| Parallel Planes | ABC DEF | Like parallel lines, parallel planes will never intersect. |

| TERM | SYMBOL | DEFINITION |
|------------|--------|--|
| Coordinate | (x,y) | The coordinate is the distance and direction of a point from the origin on a number line. Each point has a coordinate that corresponds with some distance on the number line, and we can use the coordinate to determine the distance between 2 points. |
| Congruent | ≅ | The congruent symbol is made up of two parts - an equal (=) showing that two figures are equal in size, topped by a tilda (~) which shows that the figures are similar in shape. |
| Midpoint | A T B | The midpoint of a segment is the point of the segment where there are two congruent segments on either side (it is the halfway point). |
| Angle | | An angle is formed by two rays with the same endpoint. The rays make up the sides of the angle, and the endpoint is the vertex of the angle. When we name an angle, we can name it using just the vertex ($\angle A$), or by using points on each ray with the vertex in between ($\angle BAC$), or by numbering the angle ($\angle 1$). |

| TERM | SYMBOL | DEFINITION |
|---------------------------|------------|--|
| Acute Angle | Bx, | An angle whose measure is between 0 and 90 degrees. |
| Right Angle | E. | An angle whose measure is equal to 90 degrees. |
| Obtuse Angle | PX. | An angle whose measure is greater than 90 degrees, but less than 180 degrees. |
| Straight Angle | ←△→ | An angle whose measure is equal to 180 degrees. A straight angle is a line. |
| Perpendicular Lines | | Two lines that intersect to form right angles. |
| Perpendicular Bisector | 1 | A line, segment, or ray that is perpendicular to a segment at its midpoint, thereby bisecting the segment into 2 congruent segments. |
| Angle Bisector | £, | A ray or segment that divides an angle into two congruent angles. Its endpoint is the angle vertex. |

Quadrilateral Review:



Solve (you have 4 choices ©)

$$3x^2 - 2x = 21$$

Can you...

- Use the correct terms?
- Solve for angles and segments?

Assignment

6.1 Worksheet and XL