Section 2.3   Name: _____
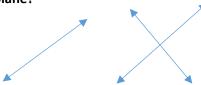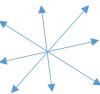
1. **Line passing through the same point are concurrent. Into how many regions for 35 concurrent lines divide the plane?**
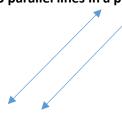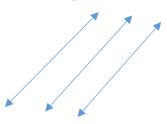
Lines	1	2	3	4	5	...	n	...	35
Regions	2					...		...	

2. **Into how many regions do 35 parallel lines in a plane divide that plane?**

Lines	1	2	3	4	5	...	n	...	35
Regions	2								

3. **How many diagonals can you draw from one vertex in a polygon with 35 sides?**

Sides									
Diagonals									

4. **What's the total number of diagonals in a 35-sided polygon?**

Sides									
Diagonals									

Section 2.3   Name: _____

For exercises 5-13, identify the statement as true or false. For each false statement, explain why it is false.

5. The largest chord of a circle is a diameter of the circle.

6. The vertex of ∠ TOP is point O.

7. An isosceles right triangle is a triangle with an angle measuring 90° and no two sides congruent.

8. If AB intersects CD in point E, then ∠ AED and ∠BED form a linear pair of angles.

9. If two lines lie in the same plane and are perpendicular to the same line, then they are perpendicular.

10. The opposite sides of a kite are never parallel.

11. A rectangle is a parallelogram with all sides congruent.

12. A line segment that connects any two vertices in a polygon is called a diagonal.

13. To show that two lines are parallel, you mark them with the same number of arrowheads.