**Applications of College Algebra**

**Chapter 10 – Geometry**

**10.1 – Points, Lines, Planes, and Angles**

Math tells us three of the saddest love stories

1. Tangent lines who had one chance to meet and then parted forever.
2. Parallel lines who were never meant to meet.
3. Asymptotes who can get closer and closer but will never be together.



1. Use the definite of parallel lines to explain the joke in the above cartoon.
2. The picture shows a window with parallel framing in which snow has collected in the corners. What property of parallel lines is illustrated by where the snow has collected?

1. The picture shows the top of an umbrella in which all the angles formed by the spokes have the same measure. Find the measure of each angle.

![C:\Users\nnguyen\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\OR0H7GLC\umbrella_corporation_by_nousernameremain-d3elhis[1].png]()



*k*

*m*

*n*

Lines  *m* and *n* are \_parallel\_\_\_.

Line *k* is a transversal – A line intersects a pair of parallel lines.

Consecutive angle – Two interior angles lying on the same side of the transversal cutting across two parallel lines.

Alternate interior angle – Interior angles that do not have a common vertex on alternate sides of the transversal.

Alternate exterior angle – Exterior angles that do not have a common vertex on alternate sides of the transversal.

Vertical angle – opposite angles formed by 2 intersecting lines.

Corresponding angle – One interior angle and 1 exterior angle on the same side of the transversal.

Perpendicular line – Two intersecting lines formed 90º angle.

Ex. 1: Find the value of x.





Ex. 2: Find the value of x.

**Homework 10.1 p 537 #1-13, 25-27, 31-45 odd, 58, 59, 69, 71**