Name: _____ Date: _____ Row: _____ Period: _____

NOTES SECTION 2.2: SLOPE AND RATE OF CHANGE

THE SLOPE OF A LINE

EXAMPLE 1
Find the slope of the line passing through
_____ and _____.

YOUR TURN
Find the slope of the line passing through
_____ and _____.

TYPES OF SLOPE

POSITIVE SLOPE	NEGATIVE SLOPE	ZERO SLOPE	UNDEFINED SLOPE

EXAMPLE 2
Without graphing, tell whether the line through the given points rises, falls, is horizontal, or vertical.

a)	b)	YOUR TURN

EXAMPLE 3
Tell which line is steeper.
Line 1: through _____ and _____
Line 2: through _____ and _____

PARALLEL LINES	PERPENDICULAR LINES

EXAMPLE 4
Tell whether the lines are parallel, perpendicular, or neither.

a) Line 1: _____ and _____
    Line 2: _____ and _____
	b) Line 1: _____ and _____
	    Line 2: _____ and _____

EXAMPLE 5
The slope of a road, or grade, is usually expressed as a percent. For example, if a road has a grade of 3%, it rises 3 feet for every 100 feet of horizontal distance.

a) Find the grade of a road that rises _____ over a horizontal distance of 2000 feet.	b) Find the horizontal length x of a road with a grade of _____ if the road rises 50 feet over its length.

EXAMPLE 6
The number of US cell phone subscribers increased from 16 million in 1993 to 44 million in _____.

a) Find the average rate of change.	b) Use the average to estimate the number of subscribers in _____.