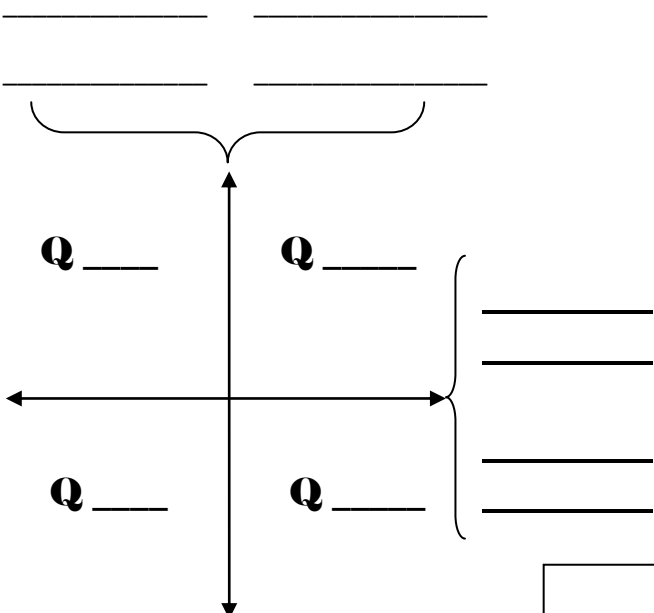
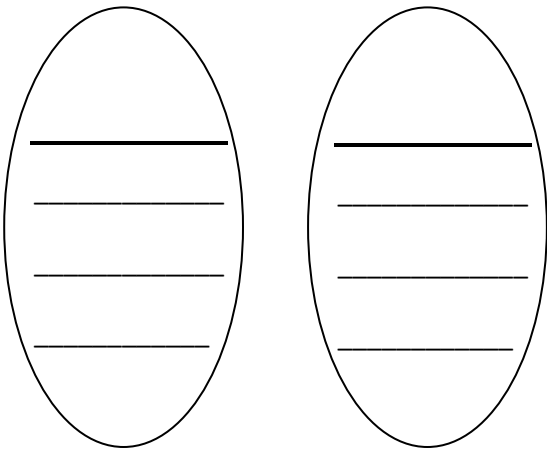


FUNCTIONAL RELATIONSHIPS

Functions can be represented in a variety of ways:

<p>Coordinate Plane</p> 	<p style="text-align: right;">Mapping</p> 								
<p>Table</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">D</td> <td style="padding: 5px;">R</td> </tr> <tr> <td style="padding: 5px;">X</td> <td style="padding: 5px;">Y</td> </tr> <tr> <td style="padding: 5px;">I</td> <td style="padding: 5px;">D</td> </tr> <tr> <td style="padding: 5px;">I</td> <td style="padding: 5px;">O</td> </tr> </table>		D	R	X	Y	I	D	I	O
D	R								
X	Y								
I	D								
I	O								
<p>Ordered Pair</p> <p>(_____, _____)</p> <p>(_____, _____)</p> <p>(_____, _____)</p> <p>(_____, _____)</p>	<p style="text-align: right;">Function Notation</p> <p style="text-align: right;">$f(\text{_____}) = \text{_____}$</p> <p style="text-align: right;">$f(\text{_____}) = \text{_____}$</p> <p style="text-align: right;">$f(\text{_____}) = \text{_____}$</p> <p style="text-align: right;">$f(\text{_____}) = \text{_____}$</p>								

Important Things to Remember:

- **DR. XY** needs to wear his **ID** while **In** the **Office**.
- For a relation to be a function, the “x” values cannot repeat.

Equations: Remember inside/outside

In the equation $C = 19.75n + 5.80$, "n" represents the number of DVDs ordered and "C" represents the total cost. Label the independent and dependent variable, and describe the relationship in a complete sentence.

$C = 19.75n + 5.80$
Arrows point from the 'C' and 'n' to the blank lines below.

Using Stat to generate equations

1) What equation could be used to generate this table of values?

x	y
-2	1
-1	3
0	5
1	7

2) What linear function includes the points (-3, 1) and (-2, 4)?

Words to Equations

- 1) Four less than the product of 3 and a number is equal to the number decreased by 14.
- 2) Two times the sum of a number and 4 is equal to -3 times the sum of the number and four.
- 3) Fifteen more than 5 times a number is the same as twice the number plus 6

Graphing Inequalities

What would the graph look like for...

$y \leq$: _____
_____ line, shade _____

$y \geq$: _____
_____ line, shade _____

$y <$: _____
_____ line, shade _____

$y >$: _____
_____ line, shade _____