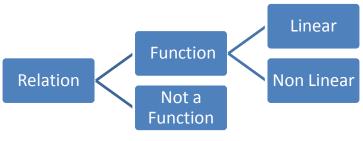
## Functions and Relations



Relations are sets of ordered pairs. They can be shown in a variety of ways. Some relations are also functions. Functions are a special type of relation. To be a function, there can only be one output assigned to each input.

Representation	Function	Not a Function
list of Ordered Pairs *Remember ordered pairs are written (x,y)	{ (6,2), (3,5), (9,0), (5,7), (8,1) }	{ (3,2), (5,7), (1,4), (9,2), (3,7) }
Table	X -3 0 3 8 -10 Y 6 8 20 4 8	X         -2         0         -2         7         -8           Y         6         8         20         4         8
Graph		
Mapping	x $y$ $-1$ $0$ $-3$ $-6$ $2$	$ \begin{array}{c c} -8 & -6 \\ -5 & 1 \\ -5 & 2 \\ 7 & 3 \\ \end{array} $