Chapter 1: Functions & Applications

What is a function? function poutput

inputs / independent variable outputs / dependent variable.

That is a it ponly gires one output

ex a function is well-defined $f(x) = x^2$, $f(z) = 2^2 = 4$,

f(a)= a, f(a+b)= (a+b) + a2+b2

f(x+3)=(x+3)

composition of functions:

 $f(x) = x^2$ $g(x) = \sin(x)$

f(g(x)) = ?

Population Data for North Carolina can be viewed as a function

1/.	1990	\$2000 2000	2010
renr	1	8,049,313	9,535,47
Panulation	16,628,631	8,091,315	

Domain of a function: Admissable inputs of our function

Range of a function. Possible outputs for a function

16 = x2+ y2

final Grade for a class:

f(HW, T1, T2, T3, F) = HW(.2)+(T1+T2+T3)(.2)+ F(2)

equation of a line y=mx+6

point-slope formula y-y = m (x-x,)

 $m = \frac{y_2 - y_1}{x_2 - x_1}$

(x, y,) (Xz, Yz)