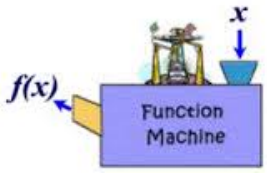
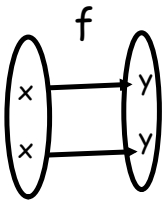
1.2 Function Notation



Feb 3

$y=f(x)$

$f:x\to y$ INPUT/OUTPUT DIAGRAM



MAPPING DIAGRAM

Realistic notation, T(t), h(t), P(x)

TEMP AT GIVEN TIME

HEIGHT AT GIVEN TIME

POPULATION AT

Given $f(x)=x^2-3x$ $g(x)=1-2x$

a) f(2)

$= 2^2 - 3(2)$

$= 4 - 6$

$= -2$

$f(2) = -2$ → POINT $(2, -2)$

b) g(2)

$= 1 - 2(2)$

$= 1 - 4$

$= -3$

c) f(-1)+g(3)

$= ((-1)^2 - 3(-1)) + (1 - 2(3))$

$= 1 + 3 + 1 - 6$

$= -1$

d) $3(f(2))^2 - 2\sqrt{g(0)}$

$= 3(-2)^2 - 2\sqrt{1 - 2(0)}$

$= 3(4) - 2\sqrt{1}$

$= 12 - 2$

$= 10$

e) f(3a)

$= (3a)^2 - 3(3a)$

$= 9a^2 - 9a$

$(a+b)^2 = a^2 + 2ab + b^2$

f) f(c+2)-g(c+2)

$= ((c+2)^2 - 3(c+2)) - (1 - 2(c+2))$

$= c^2 + 4c + 4 - 3c - 6 - (1 - 2c - 4)$

$= c^2 + 4c + 4 - 3c - 6 - 1 + 2c + 4$

$= c^2 + 3c + 1$

Homework p.22 #1-7,10-12,15c,17