

1/2  
L9. Funktionen (Substitutt)  $y = f(x)$

$$\text{Ex) } f(x) = 2x + 3$$

Bestimme

$$\begin{aligned} \text{a) } f(2) &= 2 \cdot 2 + 3 \\ f(2) &= 7 \end{aligned}$$

$$\begin{aligned} \text{b) } f(3a) &= 2 \cdot 3a + 3 \\ f(3a) &= 6a + 3 \end{aligned}$$

$$\text{Ex) } h(x) = 2x^2 + 3x - 5$$

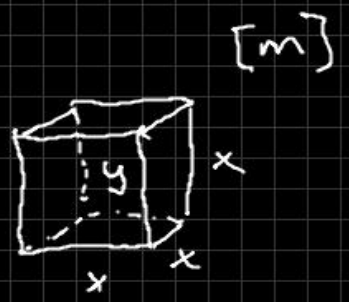
Bestimme

$$\begin{aligned} \text{a) } h(-2) &= 2 \cdot (-2)^2 + 3 \cdot (-2) - 5 \\ &= 2 \cdot 4 - 6 - 5 \end{aligned}$$

$$h(-2) = -3$$

$$\begin{aligned} \text{b) } h(a^2) &= 2(a^2)^2 + 3a^2 - 5 \\ h(a^2) &= 2a^4 + 3a^2 - 5 \end{aligned}$$

# Funktion på olika vis



Värdomängd  $y > 0$

## Ord

Volymen  $y \text{ m}^3$   
 är en funktion  
 av kubens sida,  $x \text{ m}$ .

## Formel

$$y = x \cdot x \cdot x$$

$$y = x^3$$

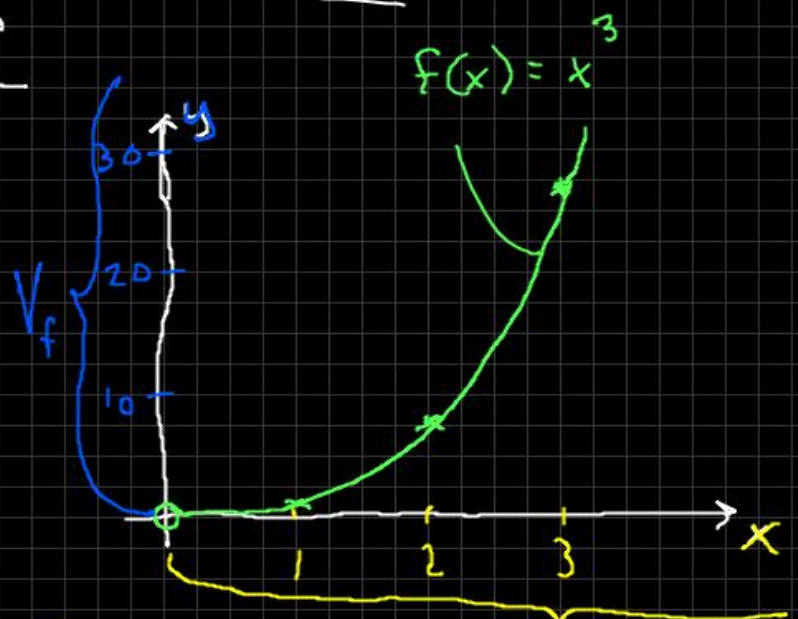
oberoende  
variabel

beroende variabel

## Tabell

x	y = x <sup>3</sup>
0	0
1	1
2	8
3	27

## Graf



$x=0 \Rightarrow$  ingen kub  $\therefore x > 0$ .

$D_f$ : Definitionsmängd  $x > 0$