

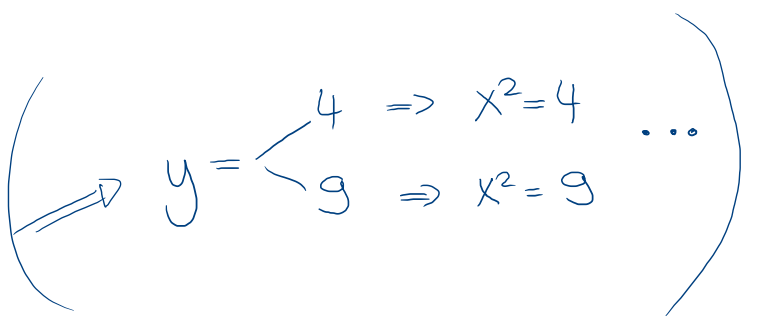
Ex 2.5.6 double

a)  $x^4 - 13x^2 + 36 = 0$

chgmt de variable  $y = x^2$

$y^2 - 13y + 36 = 0$

$(y-4)(y-9) = 0$



$y = x^2 \Rightarrow (x^2-4)(x^2-9) = 0$

$(x+2)(x-2)(x+3)(x-3) = 0 \Rightarrow S = \{\pm 2; \pm 3\}$

b)  $x^4 - 1 = 0$

PR  $(x^2+1)(x^2-1) = 0$

PR  $(x^2+1)(x+1)(x-1) = 0$

$\emptyset \quad -1 \quad 1 \Rightarrow S = \{\pm 1\}$

c)  $x^4 + 2x^2 + 1 = 0$

$y = x^2 \Rightarrow y^2 + 2y + 1 = 0$

PR  $(y+1)^2 = 0$

$y = x^2 \Rightarrow (x^2+1)^2 = 0 \Rightarrow S = \emptyset$

d)  $x^6 - 7x^3 - 8 = 0$

$y = x^3 \Rightarrow y^2 - 7y - 8 = 0$

SP  $(y-8)(y+1) = 0$

$y = x^3 \Rightarrow (x^3-8)(x^3+1) = 0$

$(x-2)(x^2+2x+4)(x+1)(x^2-x+1) = 0$

$\downarrow \quad \Delta < 0 \quad \downarrow \quad \Delta < 0 \Rightarrow S = \{-1; 2\}$