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Lec. 39

11-8-12

"gnuplot"

→ google search

MS Windows

Linux

Mac OS

$y = x \Rightarrow \text{plot } x$

$y = x^2 \Rightarrow \text{plot } x^{**}2$

$y = x^3$

plot [ ] [ ] f(x)

y range

↓  
x range

plot [0:10] x

~~pa~~ plot [ ] [100:200] f(x)

plot "filename"  $\omega$  P

pt 5 PS 3

plot "filename"  $\omega$  LP PS 1

pt 5 lt 1

lw 5

$$f(x) = m*x + c \quad \text{or}$$

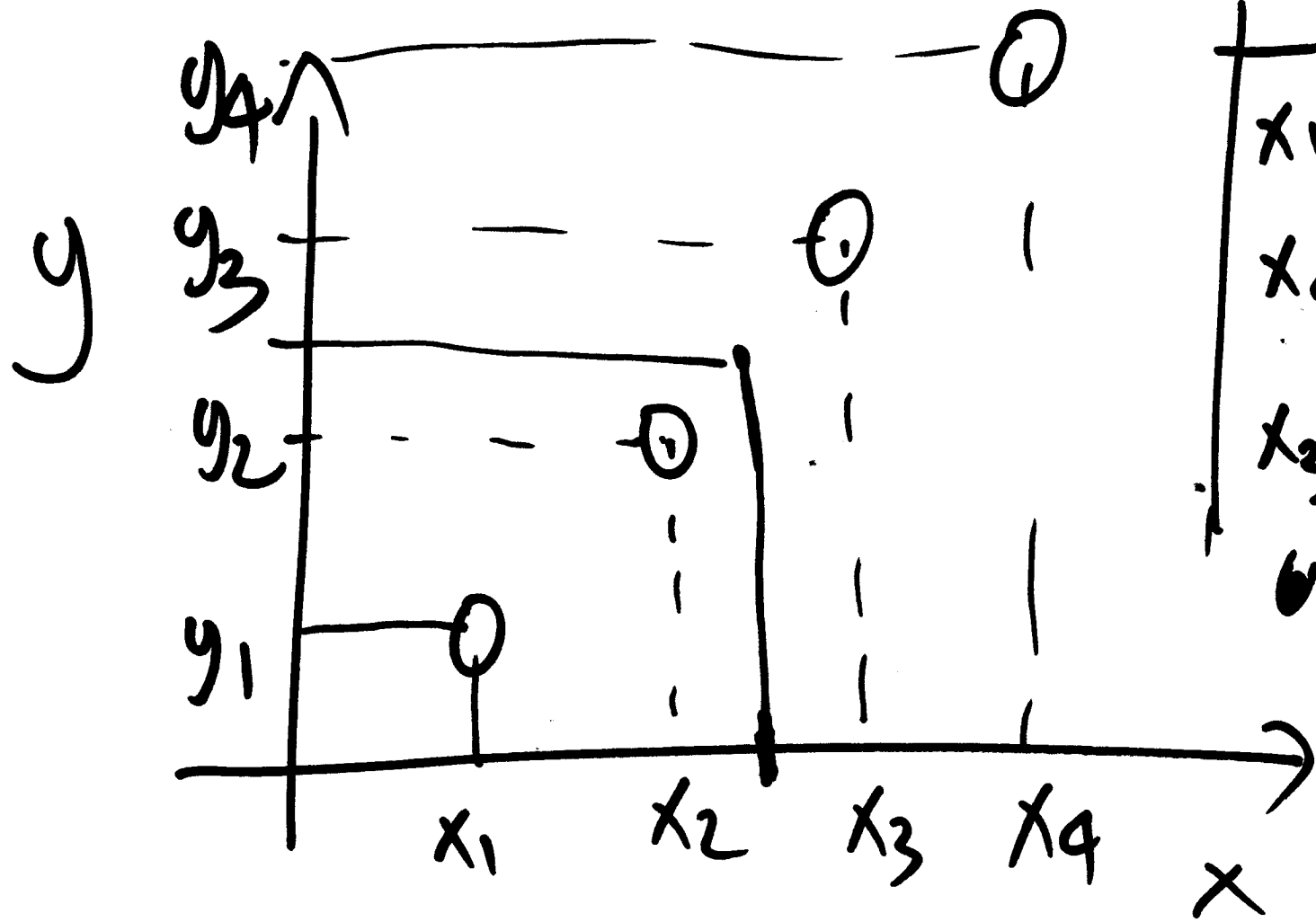
~~$$f(x) = k * x^2$$~~

$$f(x) = k * x^2$$

fit  $f(x)$  "filename" via m, c

mathematica



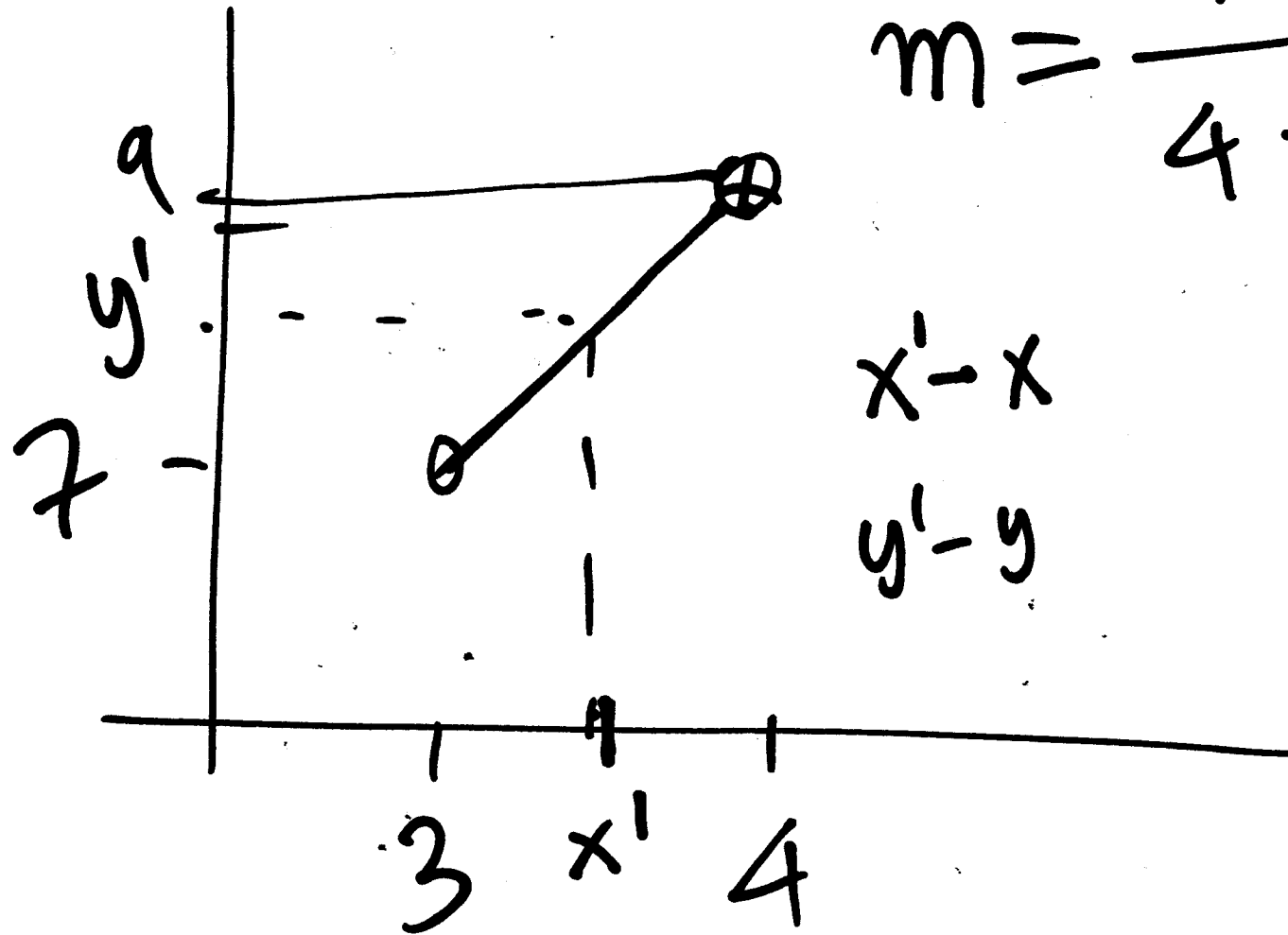


$x_1$	$y_1$
$x_2$	$y_2$
$x_3$	$y_3$
$x_4$	$y_4$

x	y
3	7
4	9
5	11

3.5 → ?





$$m = \frac{9-7}{4-3}$$

$x' - x$

$y' - y$

$$\frac{y' - y_1}{x' - x_1} = m = \frac{9 - 7}{4 - 3}$$

$$\frac{y' - 7}{3.5 - 3} = \frac{9 - 7}{4 - 3}$$

$$\frac{x_1 \quad y_1}{x_2 \quad y_2} \quad x' \rightarrow y' = ?$$

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

$$\underline{x' = 3.5?}$$