

9/7/16

MA110—

Exam on T 9/20.

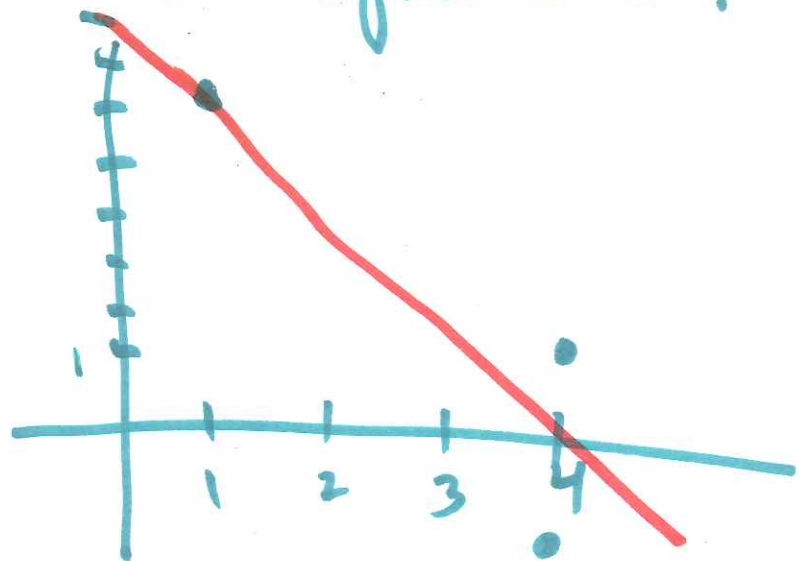
7³⁰ - 9³⁰ p.m. CB106

If you need an
alternate exam.

Reply in Canvas
by 9/7.

1 Given two
points find
a line thru
them.

What if we have
three points?



x	1	4	4
y	6	1	-1

Least squares
regression line is
The line that
"minimizes the squares
of the residuals"

Use $y = 8 - 2x$ to
model this data.

x	1	4	4
y	6	1	-1
$y - \hat{y}$	0	1	-1

$(y - \hat{y})^2$	0	1	1
Sum is	2.		

REEF #3

x	-1	0	1
p	-2	3	3
$y = 1 + 2x$	-1	1	3
$\text{Res } p - y$	-1	2	0
Res^2	1	4	0

$$\text{Sum} = 5.$$

Correlation
coefficient
 r

Measures if our
data is linear
 $r = 1$. Our data
lies on a line
w/ positive slope

$r=0$. "No relation"

w/ negative
Slope. 4

$r=-1$ on a line

w/ negative Slope

$0 < r < 1$ measures
how close our data
is to a line w/
pos. Slope.

$-1 < r < 0$

- Close to
a line

5

Example. (REEF).

x 200 205 210 220

y 101 105 107 118

r appears to be
positive, but less than 1

Checking on a
calculator

$$r \approx 0.98$$