Linear Regression Part 2

To run regression on spreadsheet.
Menu – 4: Statistics – 1: Stat Calculations: –
3: Linear Reg.

How many tds if P.M. throws for 100,000 yds?

yds x	tds y
100,000	

Know x = Use Table
Ctrl-T

To change Table Start value
Menu – 2: Table – 5: Table Settings

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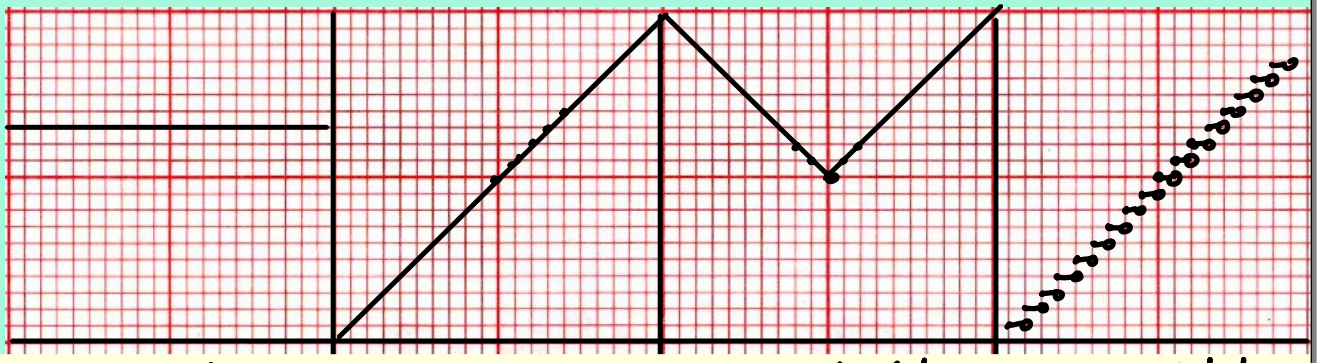
7) How many yard if 600 tds?

x	y
	600

Know y = Use graph & intersect.

Graphing Special Linear Functions



Constant

$f(x) = 3$

$y = 3$

Identity

$f(x) = x$

$y = x$

x	y
0	0
1	1
2	2

Absolute Value

$f(x) = |x|$

x	y
0	0
1	1
2	2
-1	1
-2	2

Greatest Integer

$f(x) = [x]$

x	y
0	0
0.1	0
0.5	0
0.99	0
1	1
1.5	1
1.99	1

-2 -1 0 1 2

Greatest Integer

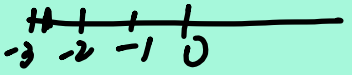
$f(x) = 4[x] - 1$

$f(3.2) = 4[3.2] - 1$

$= 4(3) - 1$

$= 12 - 1$

$= 11$



$f(-2.7) = 4[-2.7] - 1$

$= 4(-3) - 1$

$= -12 - 1$

$= -13$

$f(x) = [4x] - 1$

$f(3.6) = [4(3.6)] - 1$

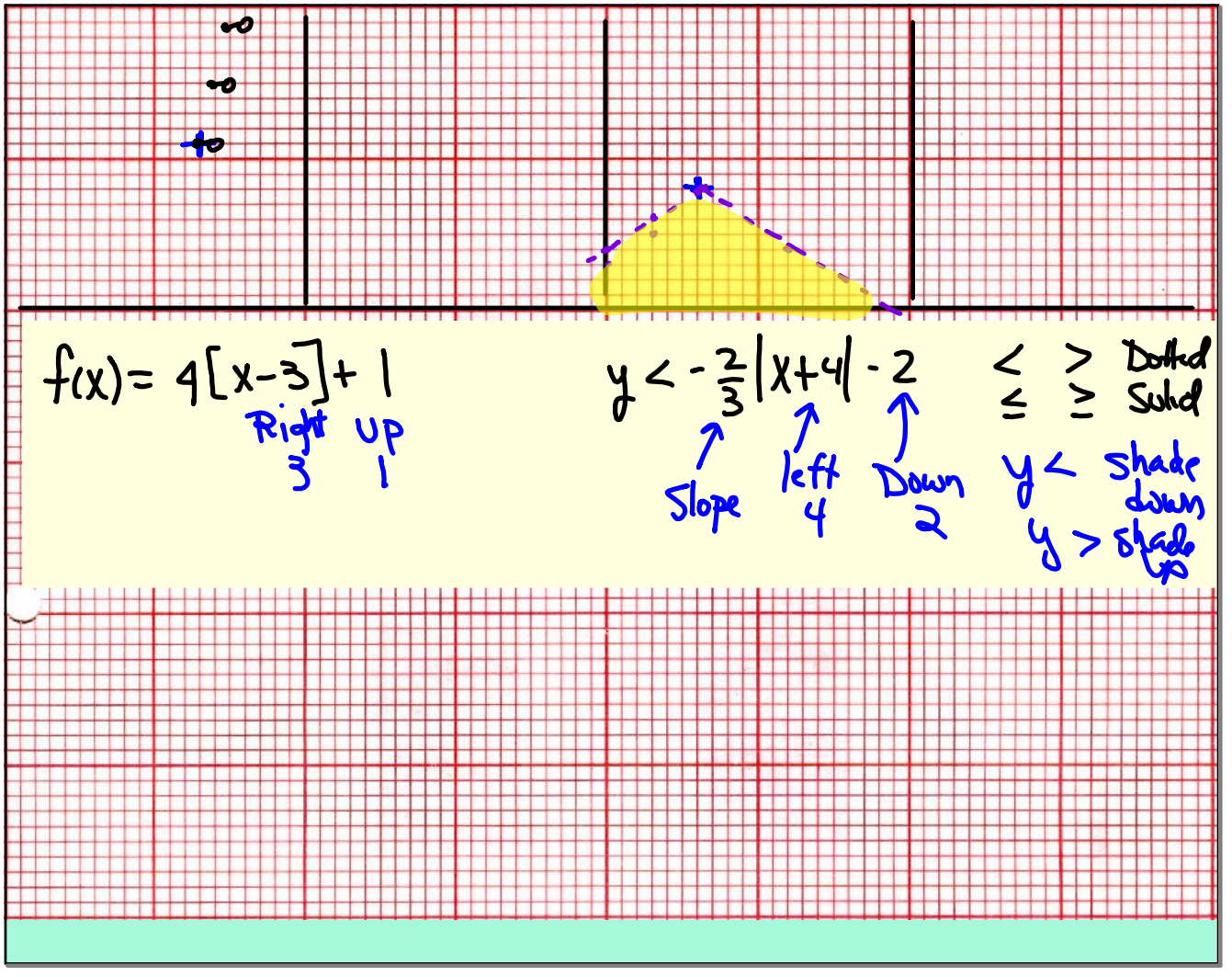
$= [14.4] - 1$

$= 14 - 1$

$= 13$

TRANSFORMATION RULES

$f(x)+c$	Move up c units $f(x)=\|x\|+3287$
$f(x)-c$	Move down c units $f(x)=\|x\|-87$
$f(x+c)$	Moves left c units $f(x)=\|x+8\|$
$f(x-c)$	Moves right c units $f(x)=\|x-17\|$
$af(x)$	Changes slope $f(x)=\frac{4}{3}\|x\|$
$-f(x)$	Reflect over x-axis $f(x)=-\|x\|$
$f(-x)$	Reflect over y-axis $f(x)=\|-x\|$


f(x) = 4[x-3] + 1
Right 3
UP 1
y < -2/3 |x+4| - 2
Slope
left 4
Down 2
< > Dotted
≤ ≥ Solid
y < shade down
y > shade up