Jan. 17, 2018

Sect. 2-2

Linear Functions

Linear Form

Graphing

Hand

Technology

Eqns. that fit the form

$$y = mx + b$$

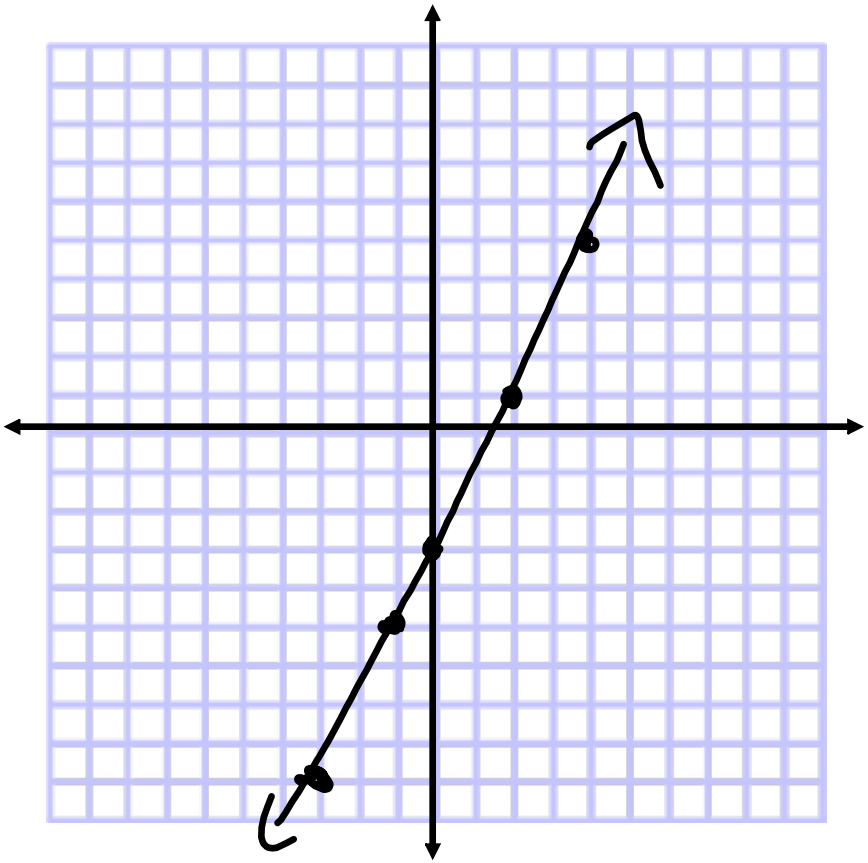
are called <u>linear</u> <u>fncts</u>.

When we graph them, the graph forms a line.

e.g.

$y = 2x - 3$

x	y
-3	-9
-1	-5
0	-3
2	1
4	5



Important: $y = mx + b$

is linear because x is x^1

Not linear: $y = x^2$ exp. not 1

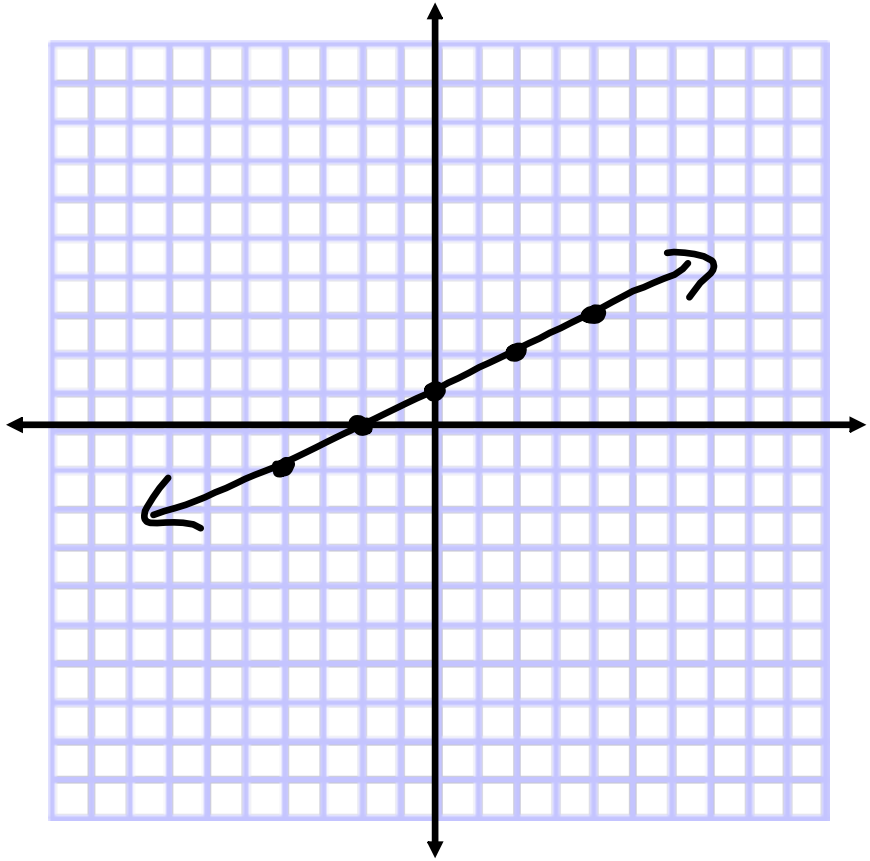
$y = \frac{5}{x}$ x in denom.

$y = \sqrt{x}$ x under radical

Plot

$y = \frac{1}{2}x + 1$

x	y
-4	-1
-2	0
0	1
2	2
4	3

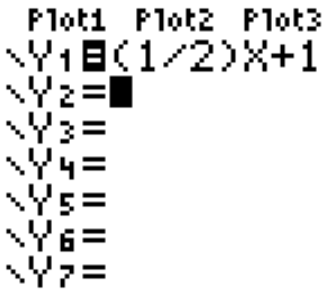


Graphing with the TI-84

Enter the eqn:

$\boxed{Y=}$

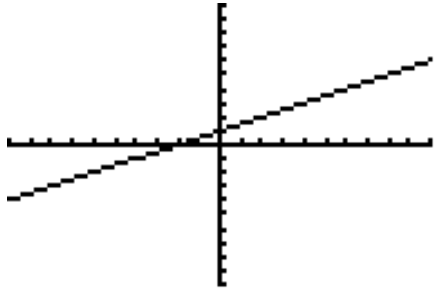
$(1 \div 2)\boxed{X\,T\,\theta\,n} + 1$



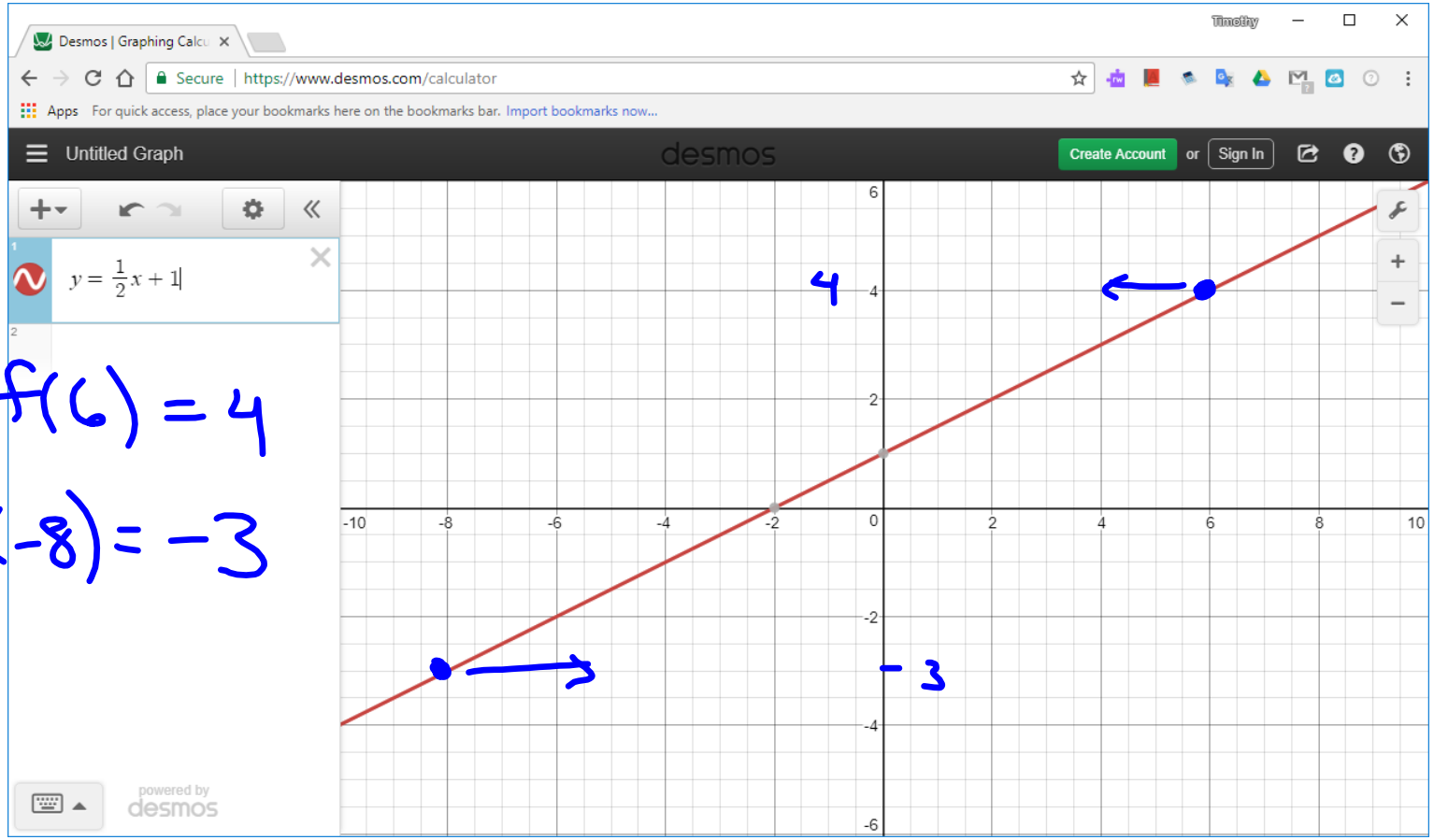
Set the window

$\boxed{\text{Zoom}}$ → Select 6 ZStandard

The graph will look like



Use graph:

Find $f(6) = 4$

$f(-8) = -3$