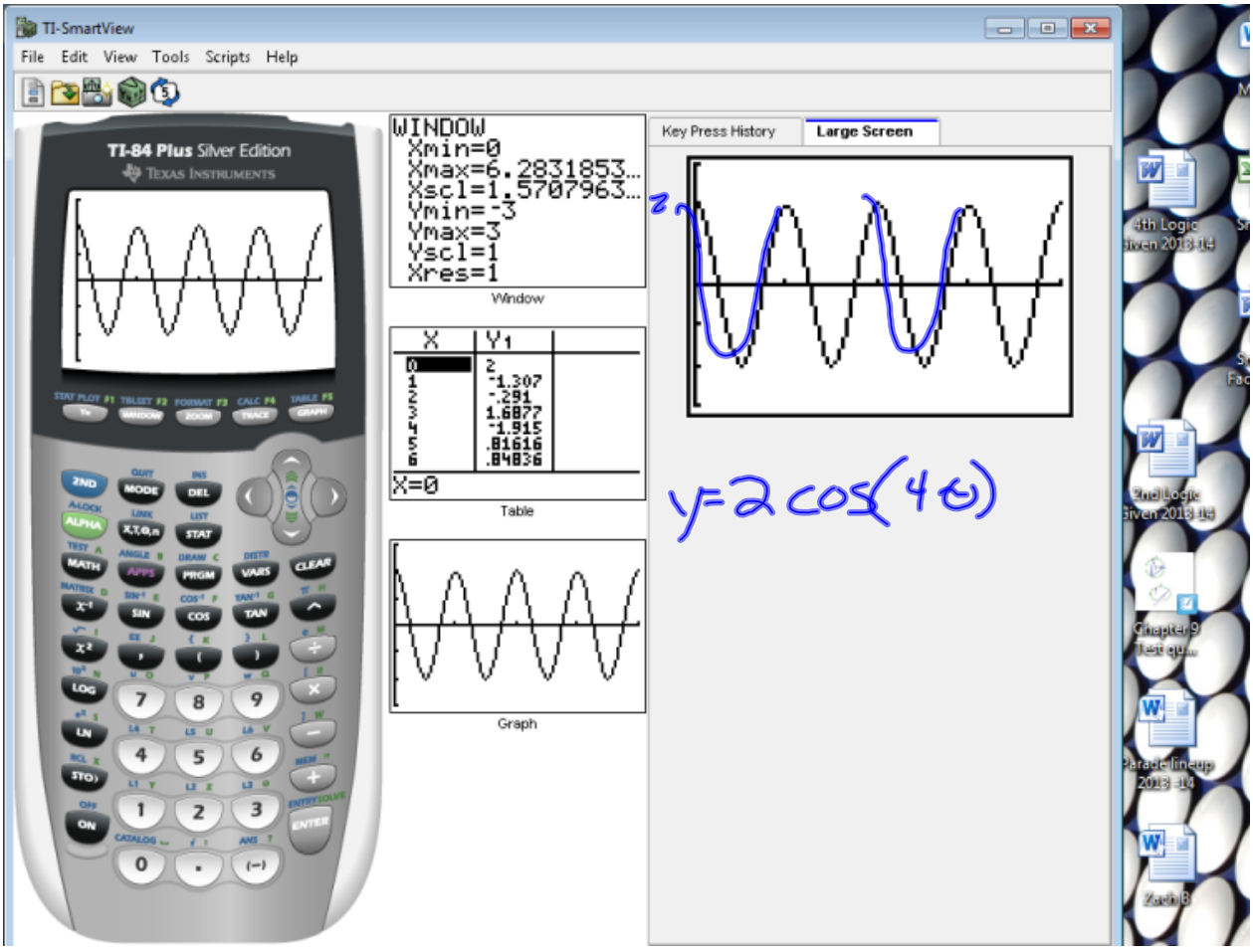
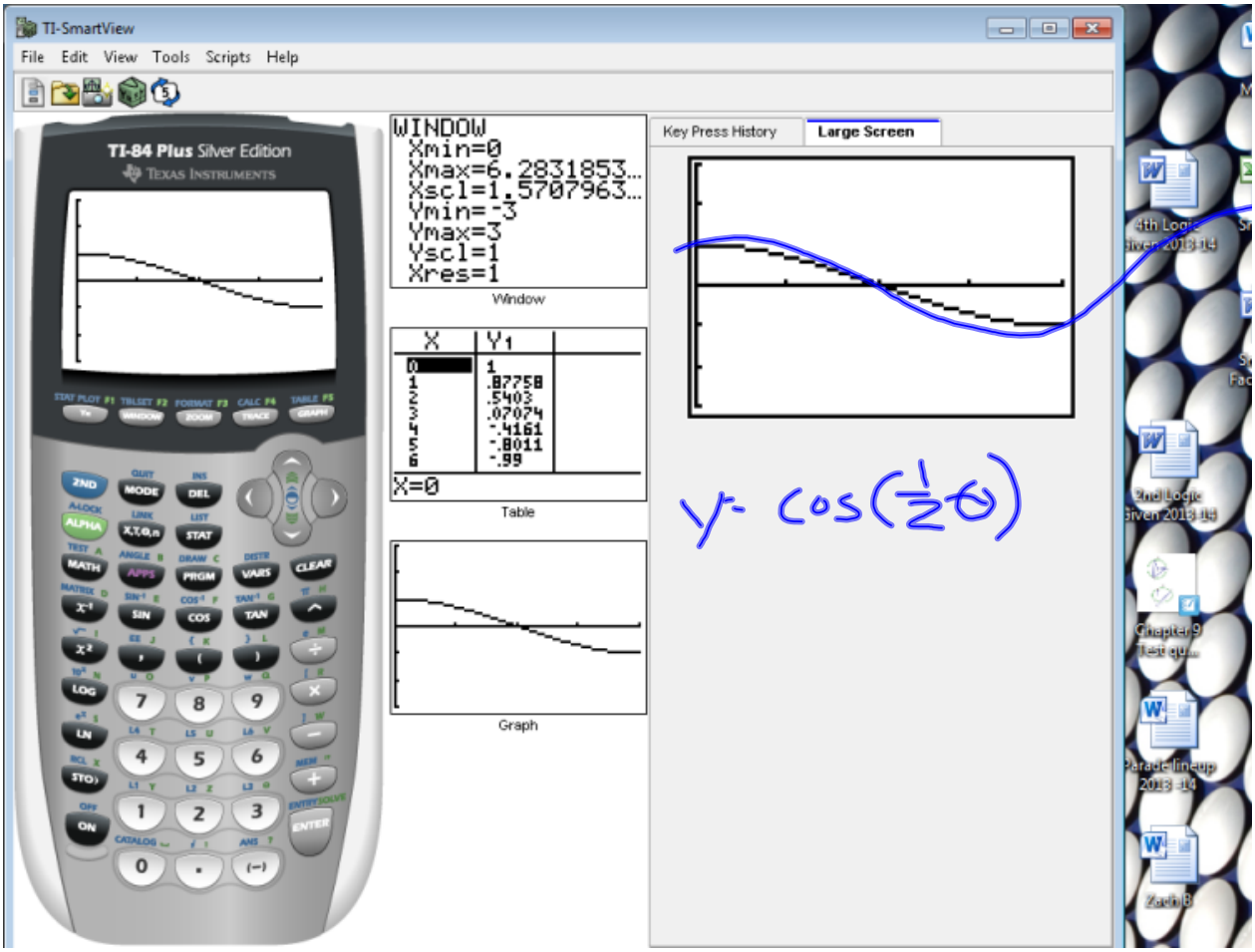

TI-SmartView
File Edit View Tools Scripts Help
TI-84 Plus Silver Edition
Texas Instruments
WINDOW
Xmin=0
Xmax=6.2831853...
Xscl=1.5707963...
Ymin=-3
Ymax=3
Yscl=1
Xres=1
Window
X Y1
0 2
1 -1.307
2 -.291
3 1.6877
4 -1.915
5 .81616
6 .84836
X=0
Table
Graph
Key Press History
Large Screen
y=2cos(4θ)


TI-SmartView
File Edit View Tools Scripts Help
TI-84 Plus Silver Edition
Texas Instruments
WINDOW
Xmin=0
Xmax=6.2831853...
Xscl=1.5707963...
Ymin=-3
Ymax=3
Yscl=1
Xres=1
Window
X Y1
0 1
1 .87758
2 .5403
3 .07074
4 -.4161
5 -.8011
6 -.99
X=0
Table
Graph
Key Press History
Large Screen
y= cos(1/2θ)

③ $y = 8\sin\left(\frac{3}{b}\theta + 60\right)$

Amplitude = 8

Period $= \frac{360}{b} = \frac{360}{3} = 120°$

Phase Shift $= \frac{-c}{b} = \frac{-60}{3} = -20$

④ Give equation that has an amplitude of 6, period = 45° and phaseshift 32:

$y = 6\sin\left(\frac{8}{b}\theta - \frac{256}{c}\right)$

$\text{period} = \frac{360}{b}$ $\qquad$ $P.S = \frac{-c}{b}$

$\frac{45}{1} = \frac{360}{b}$ $\qquad$ $\frac{32}{1} = \frac{-c}{8}$

$45b = 360$ $\qquad$ $-c = 256$

$b = 8$ $\qquad$ $c = -256$

(4) Give equation that has an amplitude of 6, period = 720° & phase shift = 2°

$$y = 6\sin\left(\frac{\frac{1}{2}\theta - \frac{1}{c}}{b}\right)$$

$$\text{period} = \frac{360}{b} \qquad \text{p.s.} = \frac{-c}{b}$$

$$\frac{720^\circ}{1} = \frac{360}{b} \qquad \frac{2}{1} = \frac{-c}{1/2}$$

$$720b = 360 \qquad -c = 1$$

$$b = 1/2 \qquad c = -1$$

$$\frac{\tan x \cdot \csc x}{\sec x}$$

$$\frac{\frac{\sin x}{\cos x} \cdot \frac{1}{\sin x}}{\frac{1}{\cos x}} \qquad \frac{\frac{1}{\cos x}}{\frac{1}{\cos x}} = 1$$

$\sin x \cdot \csc x$

$\frac{\sin x}{1} \cdot \frac{1}{\sin x} = 1$

$\tan x \cdot \csc x \cdot \cos x$

$\frac{\sin x}{\cos x} \quad \frac{1}{\sin x} \cdot \frac{\cos x}{1} = 1$

$(1-\cos x)(1+\cos x)$

$1 - \cos^2 x$

$\sin^2 x$

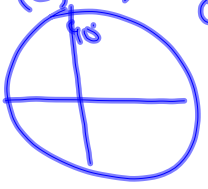
$\cos^2 x + \sin^2 x = 1$

$\sin^2 x = 1 - \cos^2 x$

$\cos(90^\circ - \theta)$

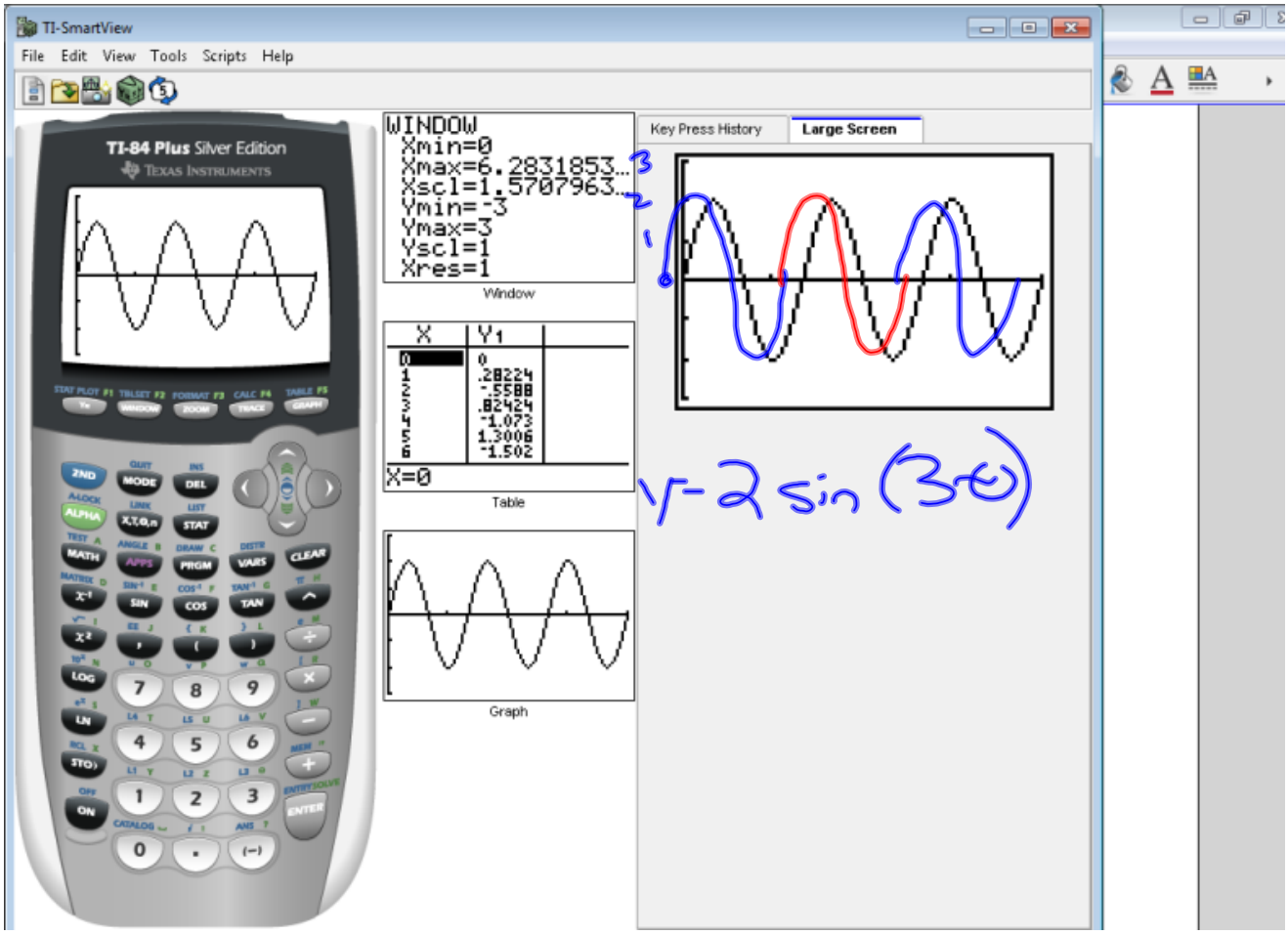
$= \cos 90^\circ \cdot \cos\theta + \sin 90^\circ \sin\theta$

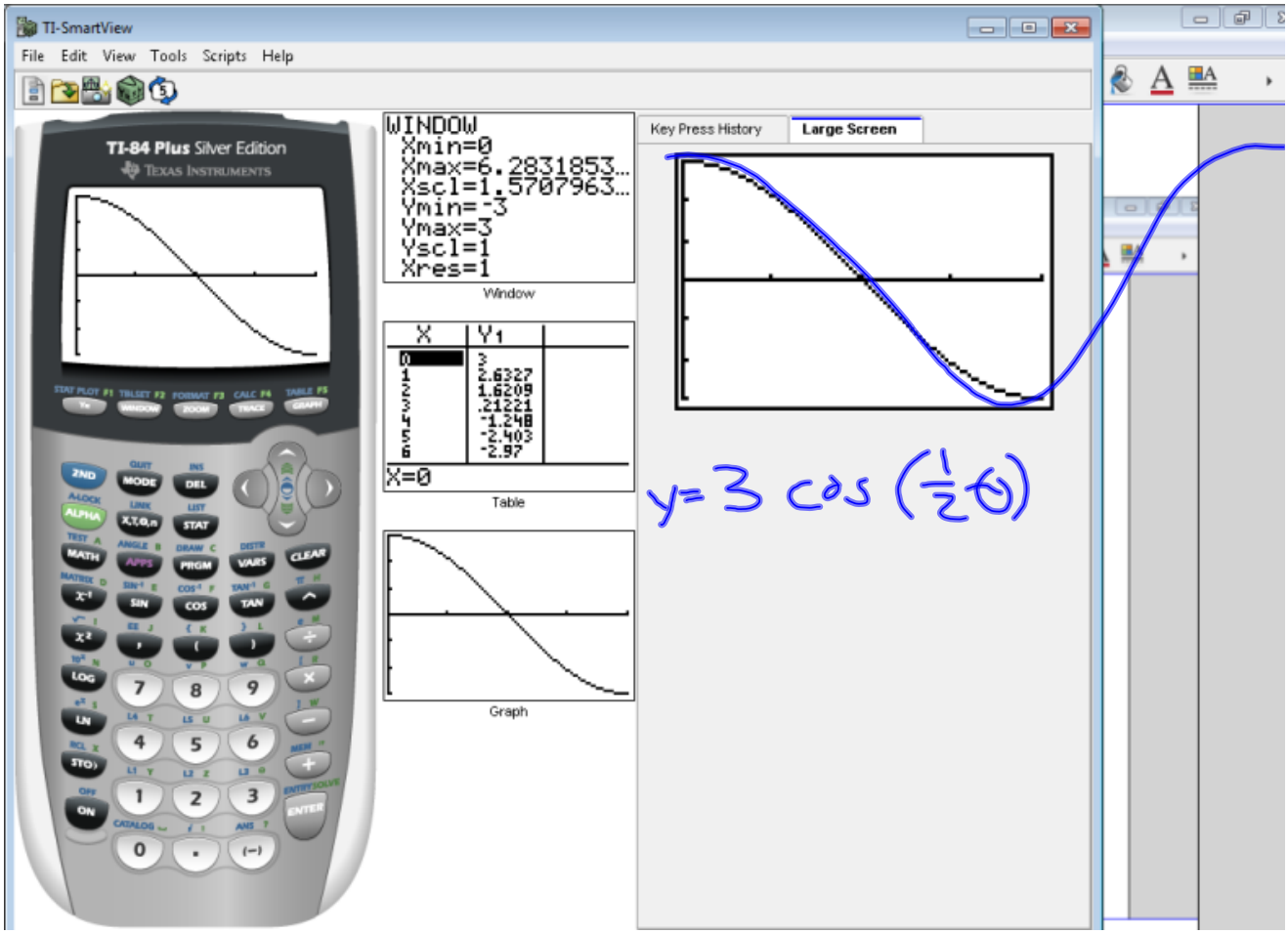
$(0,1) \rightarrow 0 \cdot \cos\theta + 1 \cdot \sin\theta$



$0 + \sin\theta$

$\sin\theta$


TI-SmartView
File Edit View Tools Scripts Help
TI-84 Plus Silver Edition
Texas Instruments
WINDOW
Xmin=0
Xmax=6.2831853...
Xscl=1.5707963...
Ymin=-3
Ymax=3
Yscl=1
Xres=1
Window
X Y1
0 0
1 .28224
2 -.5588
3 .82424
4 -1.073
5 1.3006
6 -1.502
X=0
Table
Graph
Key Press History
Large Screen
y=2 sin (3x)


TI-SmartView
File Edit View Tools Scripts Help
TI-84 Plus Silver Edition
Texas Instruments
WINDOW
Xmin=0
Xmax=6.2831853...
Xscl=1.5707963...
Ymin=-3
Ymax=3
Yscl=1
Xres=1
Window
X Y1
0 3
1 2.6327
2 1.6209
3 .21221
4 -1.248
5 -2.403
6 -2.97
X=0
Table
Graph
Key Press History
Large Screen
y=3 cos (1/2θ)

③ $y = 8\sin\left(\frac{3}{b}\theta + \frac{60}{c}\right)$

Amplitude $= 8$

Period $= \frac{360}{b} = \frac{360}{3} = 120^\circ$

Phase Shift $= \frac{-c}{b} = \frac{-60}{3} = -20$

Give eq. with

Amp $= 4$

Period $= 90^\circ$

Phase shift $= 8^\circ$

$y = 4\sin\left(\frac{4}{b}\theta - \frac{32}{c}\right)$

Period $= \frac{360}{b}$ P.S. $= \frac{-c}{b}$

$\frac{90^\circ}{1} = \frac{360}{b}$ $\frac{8}{1} = \frac{-c}{4}$

$90b = 360$ $-c = 32$

$b = 4$ $c = -32$

$$\tan x \cdot \cos x$$

$$\downarrow$$

$$\frac{\sin x}{\cancel{\cos x}} \cdot \frac{\overset{1}{\cancel{\cos x}}}{1} = \sin x$$

$$\frac{\cot x \cdot \csc x}{\sin^2 x}$$

$$\frac{\frac{\cos x}{\sin x} \cdot \frac{1}{\sin x}}{\sin^2 x}$$

$$\frac{\frac{\cos x}{\sin^2 x}}{\frac{\sin^2 x}{1}}$$

$$\frac{\cos x}{\sin^2 x} \cdot \frac{1}{\sin^2 x} = \frac{\cos x}{\sin^4 x}$$

$$\frac{\cos^2 x}{1 - \sin x} = \frac{1 - \sin^2 x}{1 - \sin x}$$

$$= \frac{\cancel{(1 - \sin x)}(1 + \sin x)}{\cancel{1 - \sin x}}$$

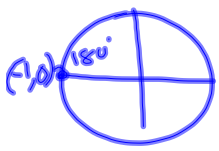
$$= 1 + \sin x$$

$$\cos(180^\circ - \theta)$$

$$= \cos 180^\circ \cdot \cos\theta + \sin 180^\circ \cdot \sin\theta$$

$$= -1 \cdot \cos\theta + \cancel{0 \cdot \sin\theta}$$

$$= -\cos\theta$$



$$\sec^2 x \cdot \cos x \cdot \csc x$$

$$\frac{1}{\cos^2 x} \cdot \frac{\cos x}{1} \cdot \frac{1}{\sin x}$$

$$\frac{1}{\cos x \cdot \sin x}$$

$$\frac{\tan x \cdot \cos x}{\sin x}$$

$$\frac{\frac{\sin x}{\cos x} \cdot \frac{\cos x}{1}}{\sin x}$$

$$\frac{\sin x}{\sin x} = 1$$