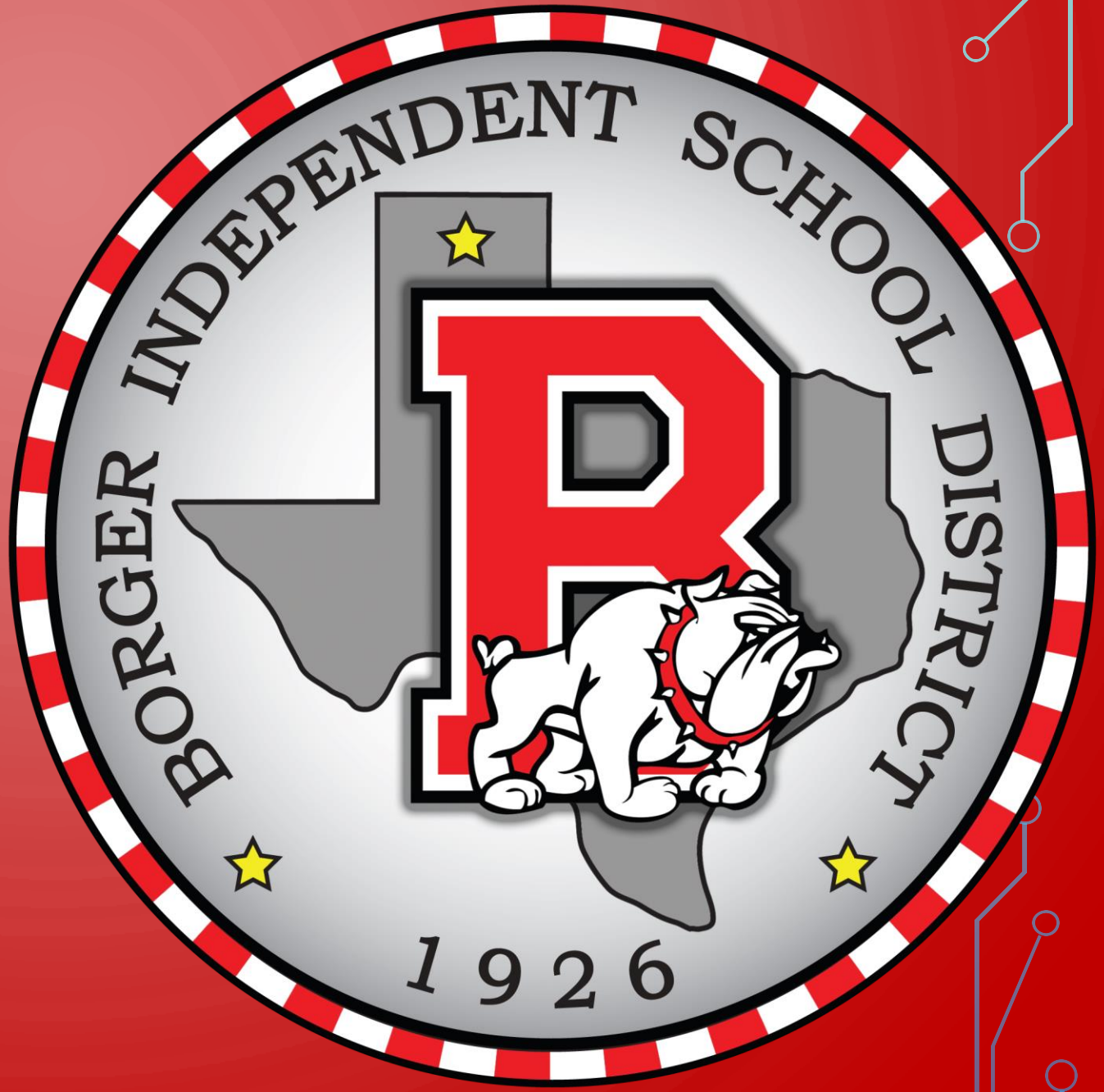
BOARD NOTES

12 FEBRUARY 2020



2A.5 (D) solve exponential equations of the form $y = ab^x$ where a is a nonzero real number and b is greater than zero and not equal to one and single logarithmic equations having real solutions;
2A.5 (E) determine the reasonableness of a solution to a logarithmic equation.

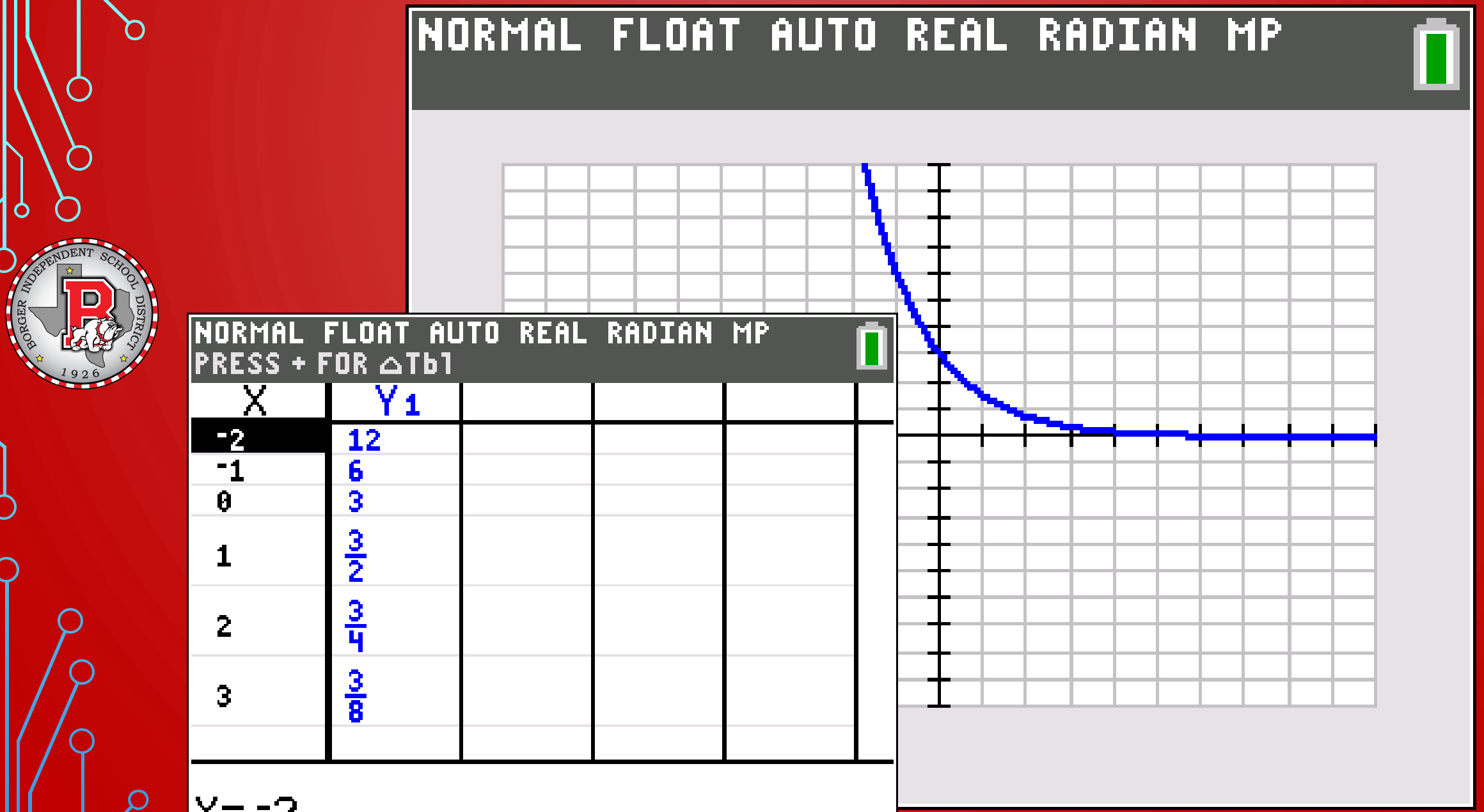
We will be able to model exponential equations (exponential growth and decay).

WHAT WE NEED:

- TI-84
- Laws of Exponents
- Definition of Exponential

I WILL BE ABLE TO COMPLETE MY HOMEWORK GIVEN THE

- Equation

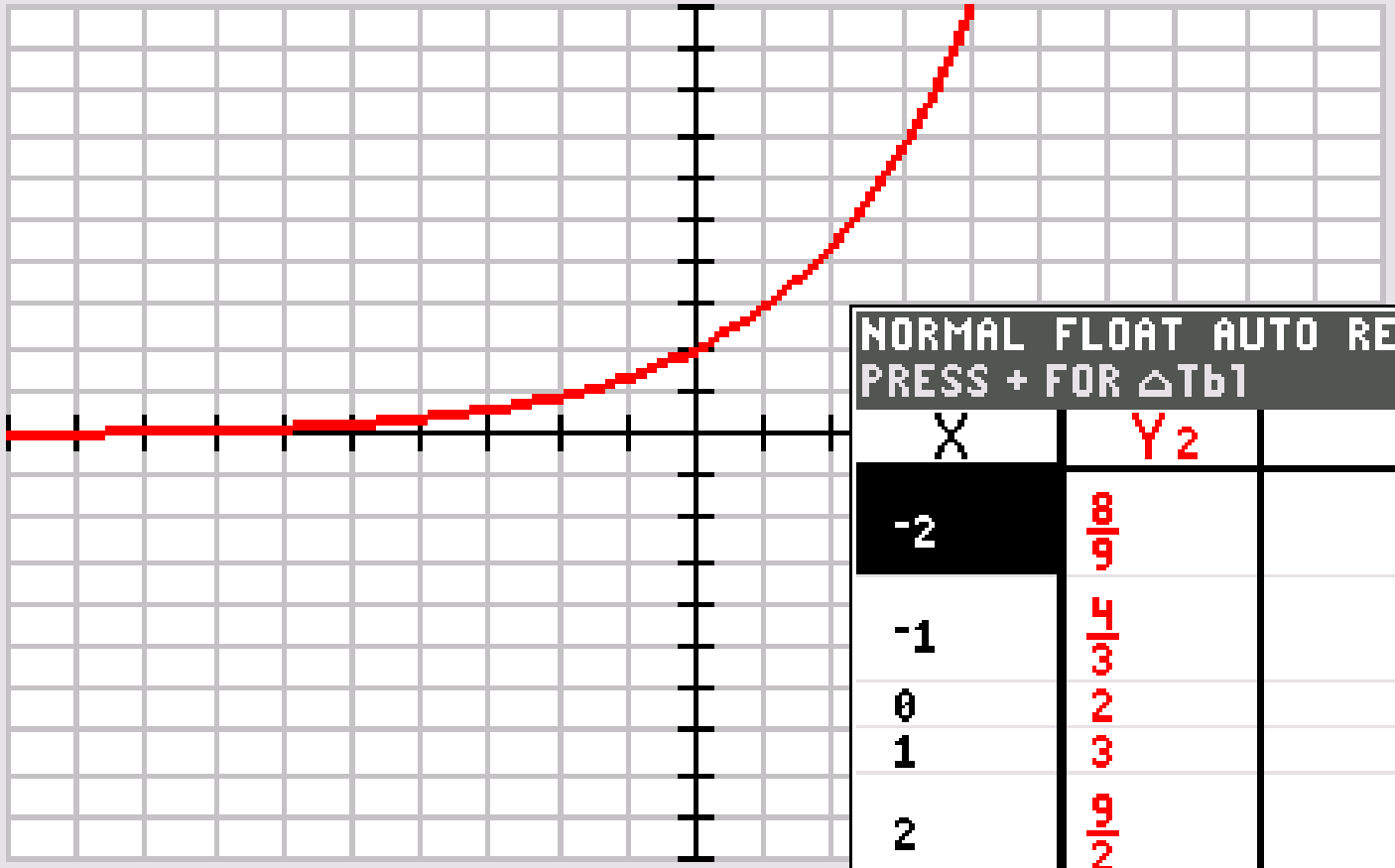


NORMAL FLOAT AUTO REAL RADIAN MP
PRESS + FOR △Tbl

X	Y_1
-2	12
-1	6
0	3
1	$\frac{3}{2}$
2	$\frac{3}{4}$
3	$\frac{3}{8}$

X= -2

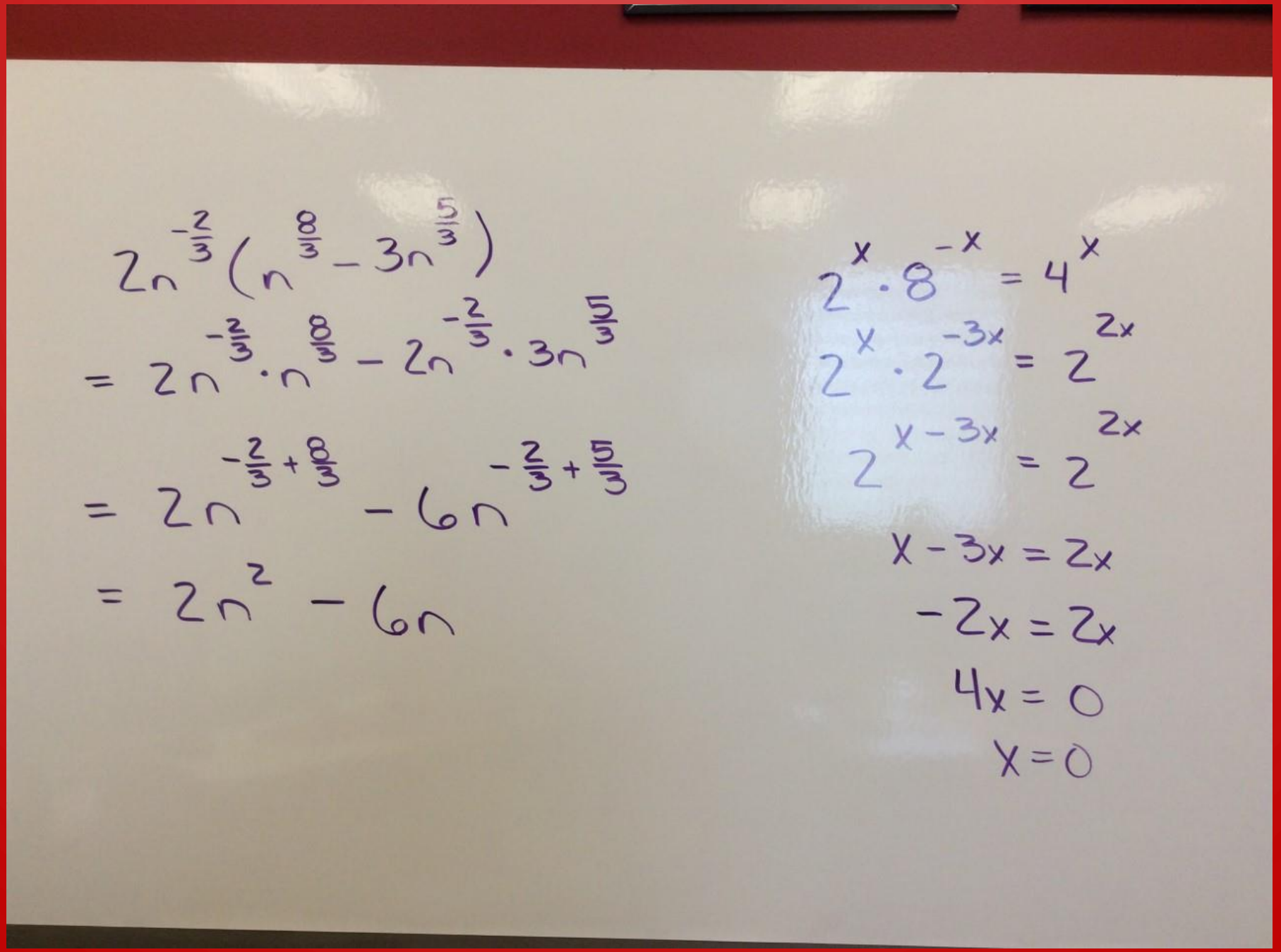
NORMAL FLOAT AUTO REAL RADIAN MP



NORMAL FLOAT AUTO REAL RADIAN MP
PRESS + FOR △Tbl

X	Y_2
-2	$\frac{8}{9}$
-1	$\frac{4}{3}$
0	2
1	3
2	$\frac{9}{2}$

X= -2



$$2n^{-\frac{2}{3}}\left(n^{\frac{8}{3}} - 3n^{\frac{5}{3}}\right)$$

$$= 2n^{-\frac{2}{3}} \cdot n^{\frac{8}{3}} - 2n^{-\frac{2}{3}} \cdot 3n^{\frac{5}{3}}$$

$$= 2n^{-\frac{2}{3}+\frac{8}{3}} - 6n^{-\frac{2}{3}+\frac{5}{3}}$$

$$= 2n^2 - 6n$$

$$2^x \cdot 8^{-x} = 4^x$$

$$2^x \cdot 2^{-3x} = 2^{2x}$$

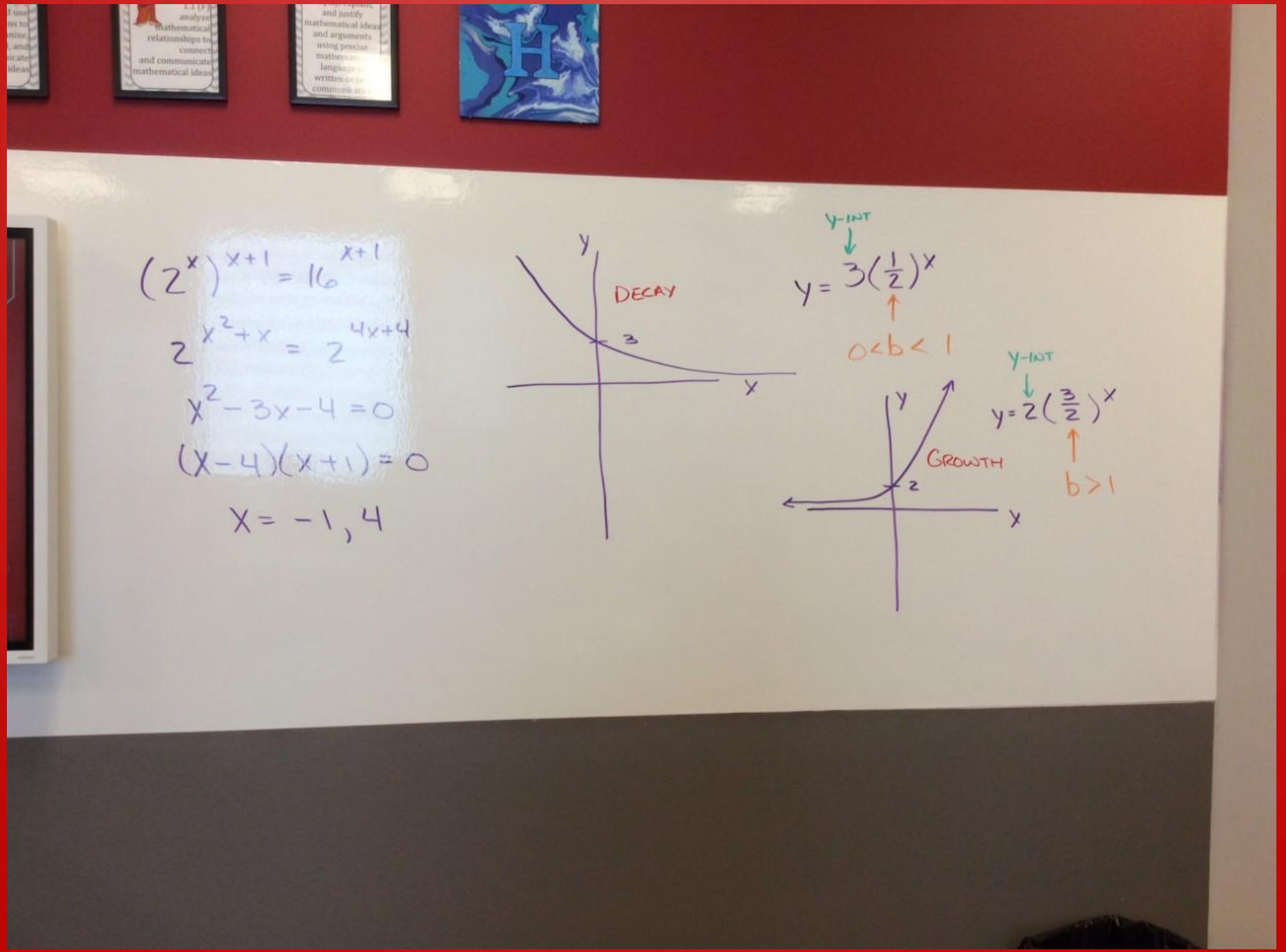
$$2^{x-3x} = 2^{2x}$$

$$x - 3x = 2x$$

$$-2x = 2x$$

$$4x = 0$$

$$x = 0$$


$(2^x)^{x+1} = 16^{x+1}$
$2^{x^2+x} = 2^{4x+4}$
$x^2 - 3x - 4 = 0$
$(x-4)(x+1) = 0$
$x = -1, 4$
y
DECAY
3
x
y-INT
$y = 3(\frac{1}{2})^x$
$0 < b < 1$
y-INT
$y = 2(\frac{3}{2})^x$
$b > 1$
y
GROWTH
2
x