BOARD NOTES

10 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 solve exponential equations.

WHAT WE NEED:

- TI-84
- Laws of Exponents

I WILL BE ABLE TO COMPLETE MY HOMEWORK GIVEN THE

- Equation

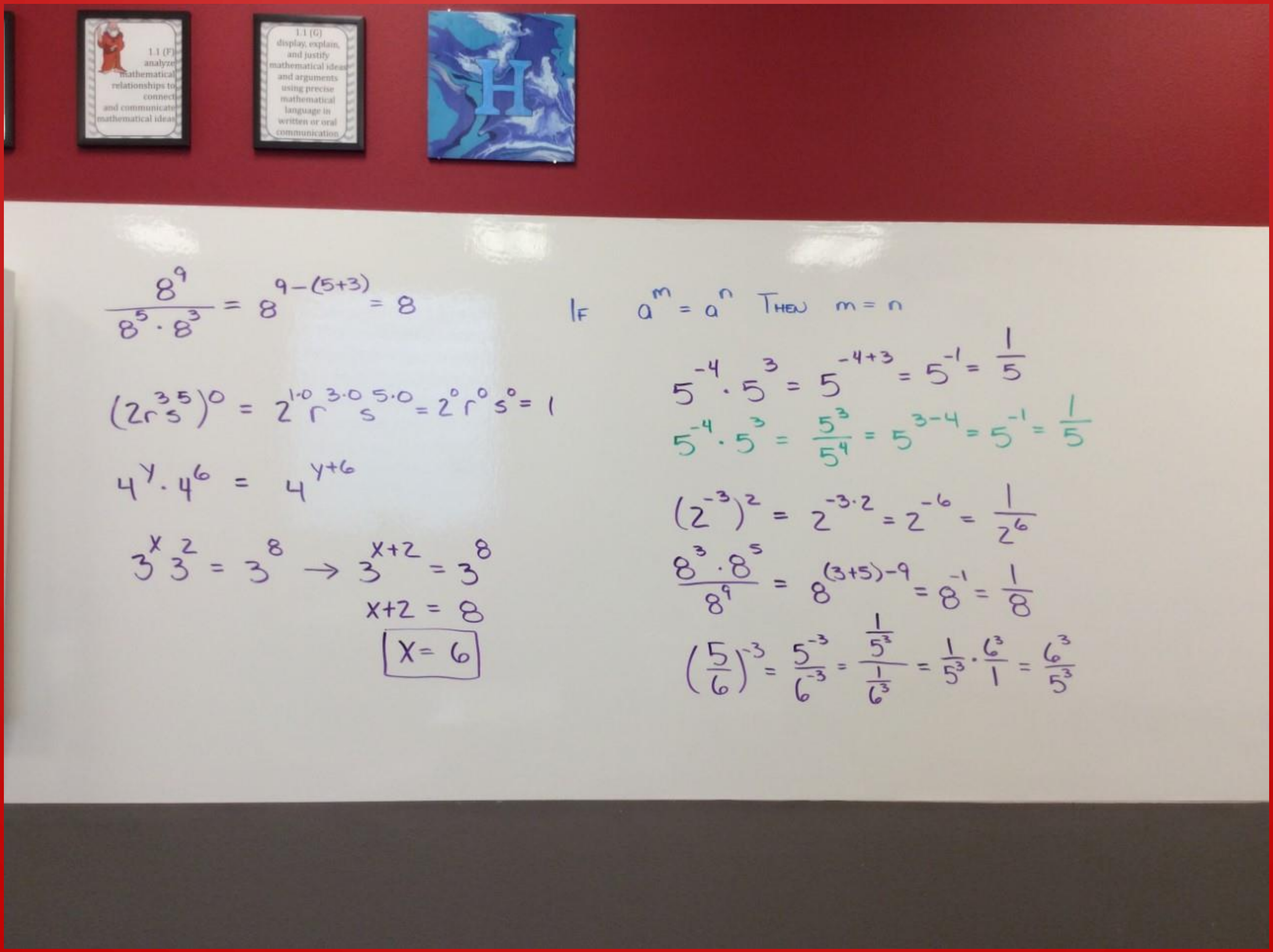
$$(-4)(-4)^3 = -4^{1+3} = (-4)^4$$

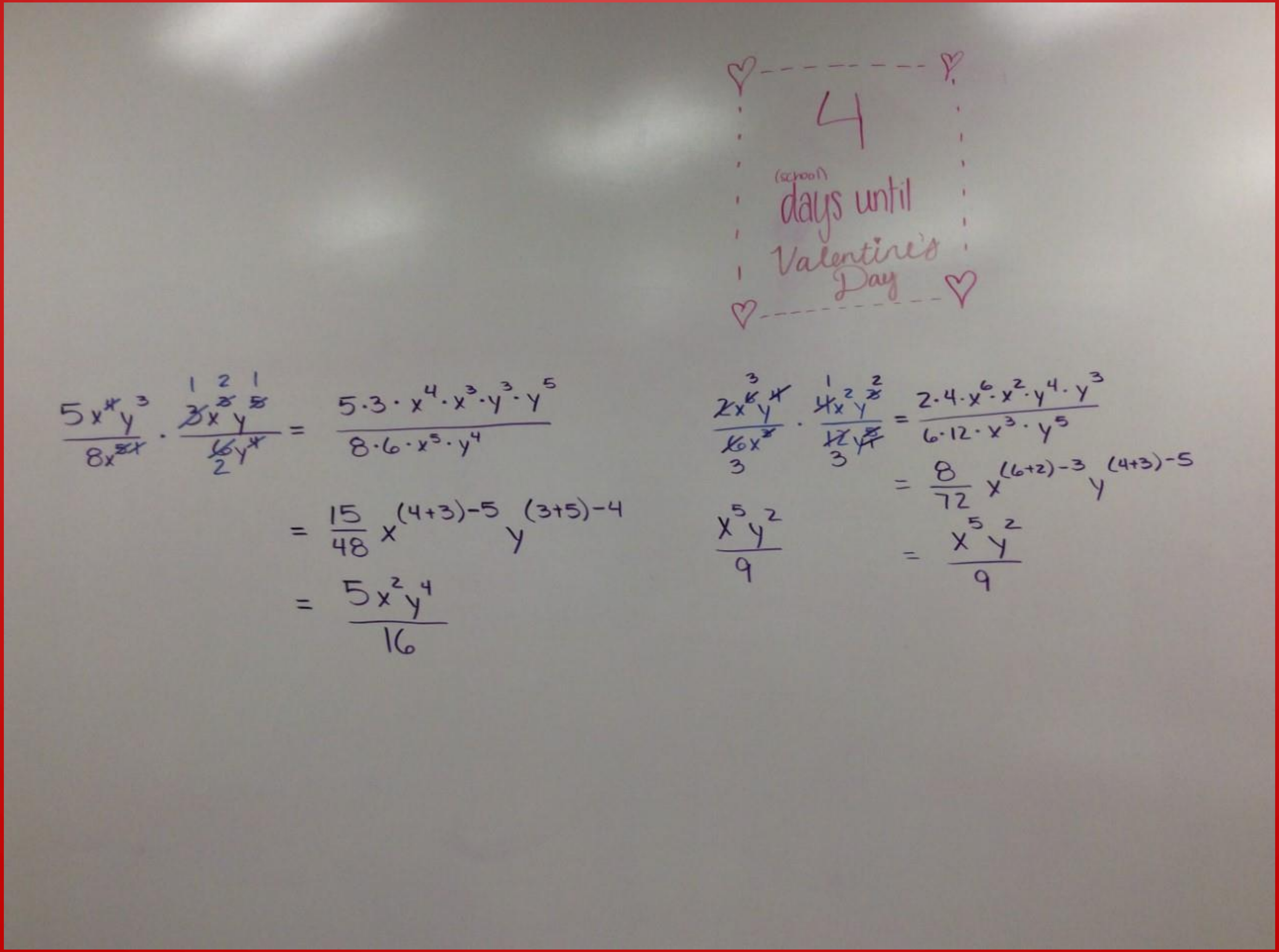
$$\left((-3)^2\right)^3 = (-3)^{2\cdot 3} = (-3)^6$$

$$(3^2 x^2 y)^2 = 3^{2\cdot 2} x^{2\cdot 2} y^{1\cdot 2} = 3^4 x^4 y^2$$

$$m^7 \cdot \frac{1}{m^4} = m^{7-4} = m^3$$

BORGER INDEPENDENT SCHOOL DISTRICT 1926




4
(school) days until Valentine's Day
$\frac{5x^4y^3}{8x^5} \cdot \frac{3x^3y^5}{6y^4} = \frac{5\cdot3\cdot x^4\cdot x^3\cdot y^3\cdot y^5}{8\cdot6\cdot x^5\cdot y^4}$
$= \frac{15}{48}x^{(4+3)-5}y^{(3+5)-4}$
$= \frac{5x^2y^4}{16}$
$\frac{2x^6y^4}{6x^3} \cdot \frac{4x^2y^3}{12y^5} = \frac{2\cdot4\cdot x^6\cdot x^2\cdot y^4\cdot y^3}{6\cdot12\cdot x^3\cdot y^5}$
$= \frac{8}{72}x^{(6+2)-3}y^{(4+3)-5}$
$= \frac{x^5y^2}{9}$

$$\frac{x^2 \cdot y^4 \cdot y^3}{{}^3 \cdot y^5}$$

$$^{(6+2)-3}\, y^{(4+3)-5}$$

$$\frac{x^{-2}y^{3}z^{-1}}{x^{-3}y^{2}} \cdot \frac{x^{2}y^{-1}z}{z^{3}} = x^{(-2+2)-(-3)}\, y^{(3-1)-2}\, z^{(-1+1)-3}$$

$$= \frac{x^3}{z^3}$$