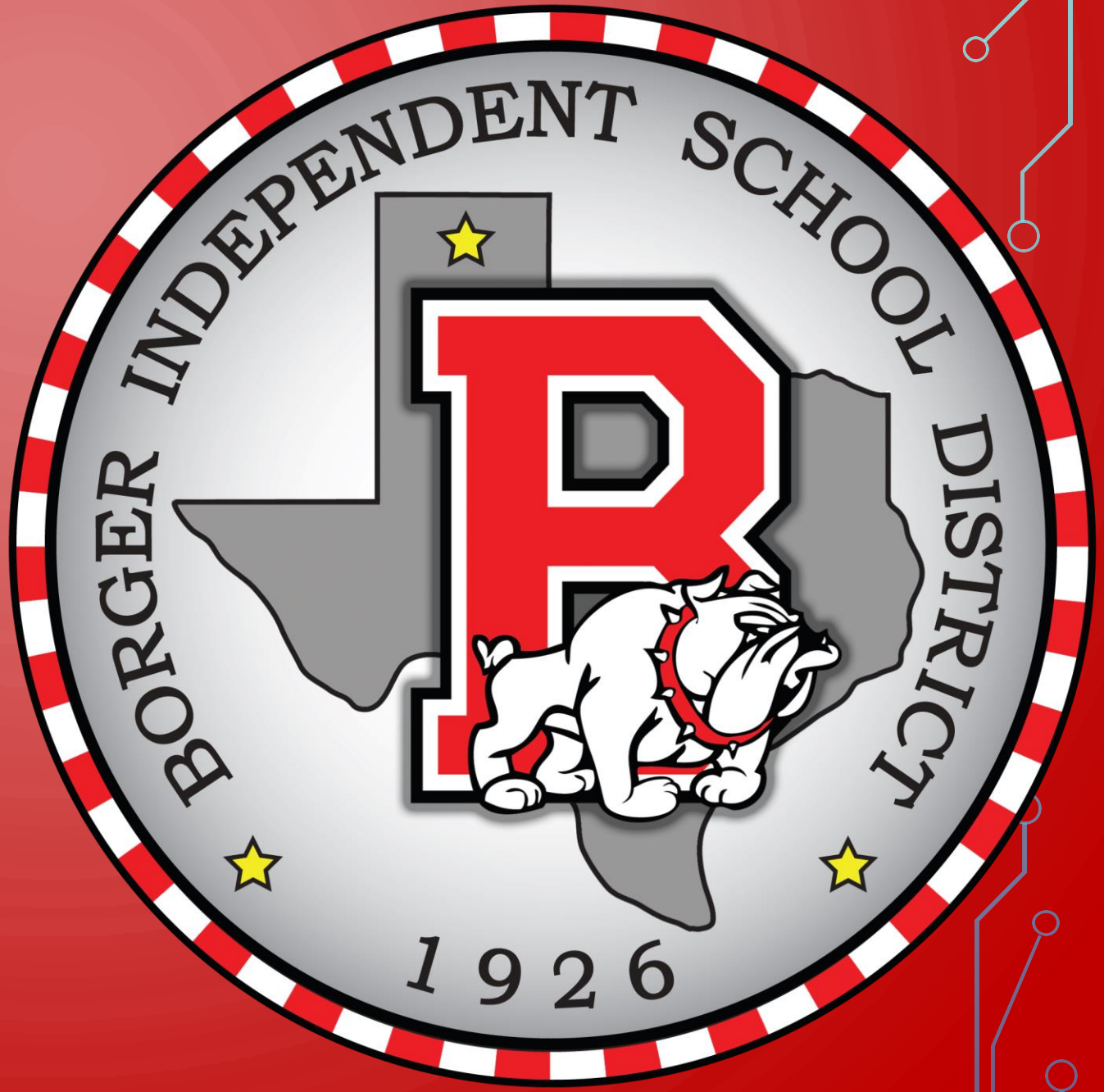
BOARD NOTES

24 JANUARY 2020



2A.6 (L) formulate and solve equations involving inverse variation.

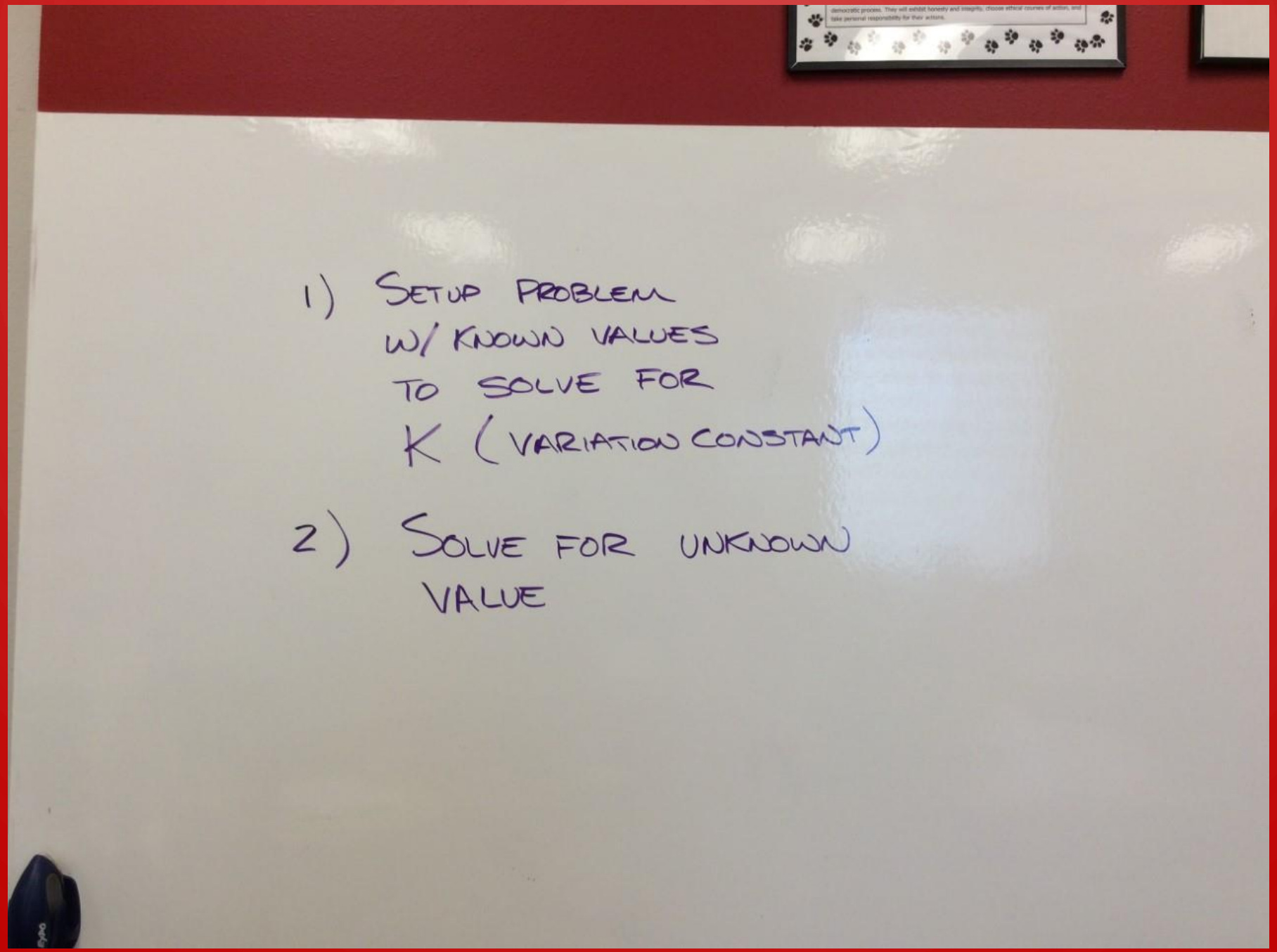
We will be able to formulate and solve variation problems.

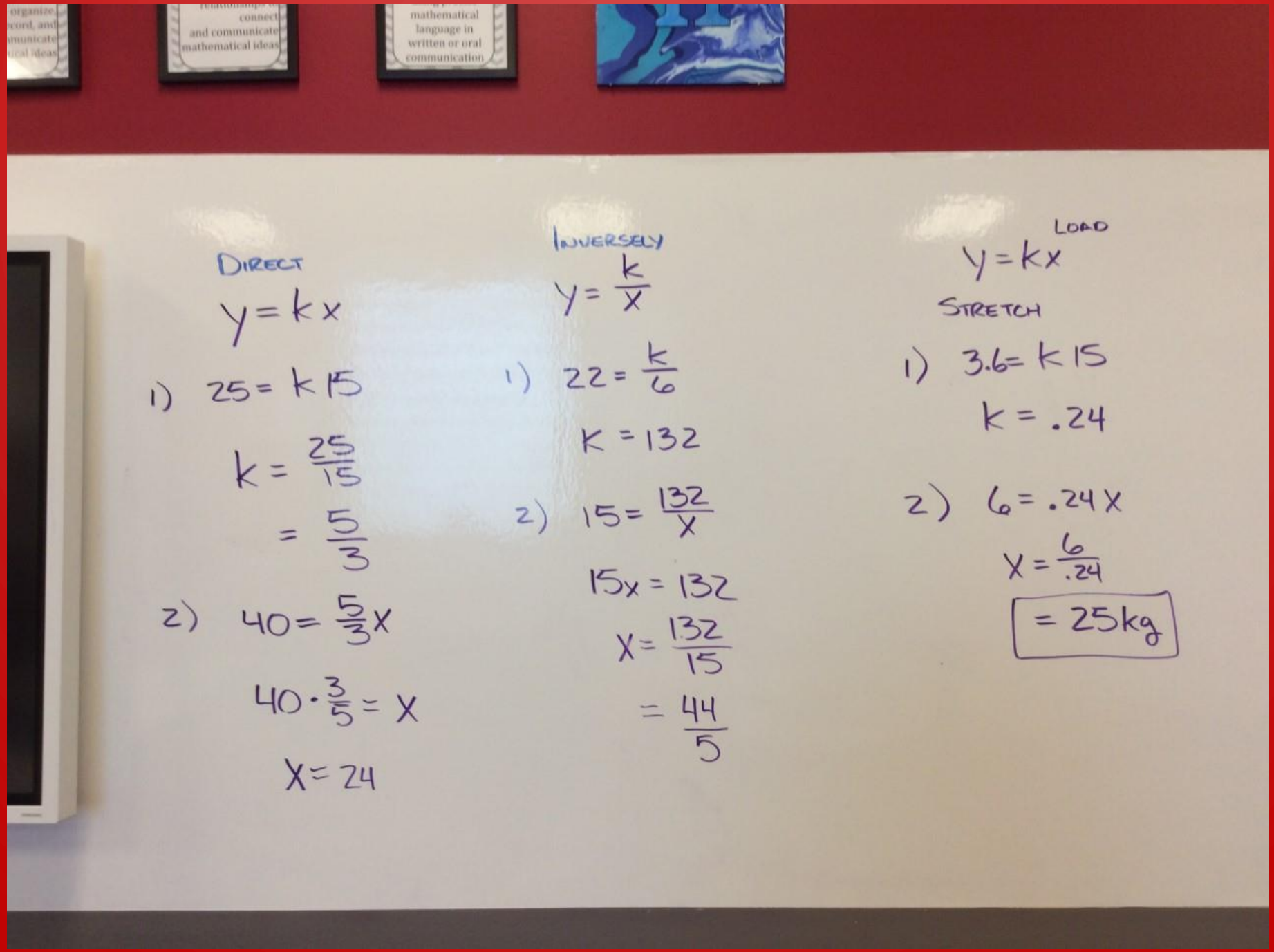
WHAT WE NEED:

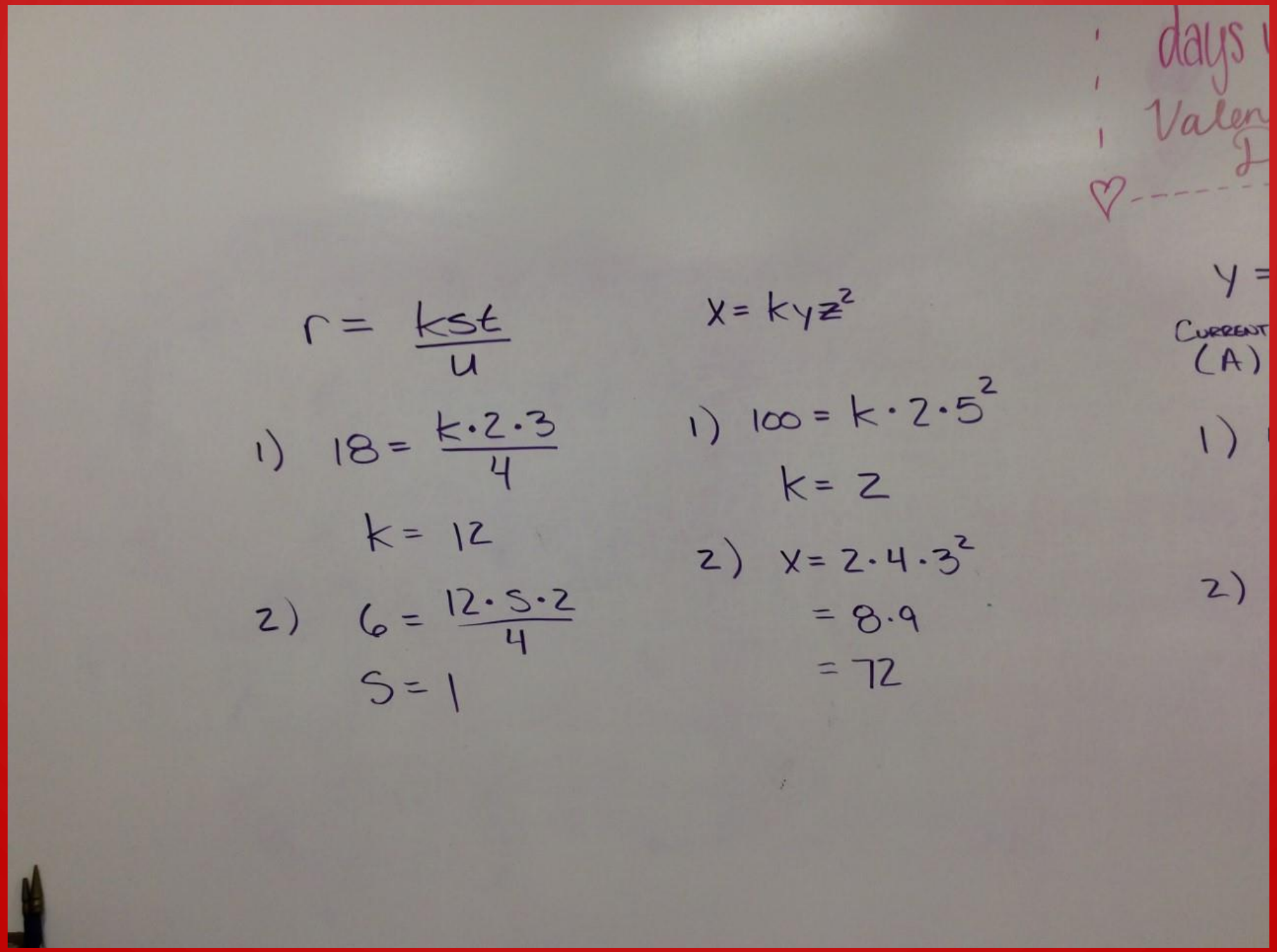
- TI-84

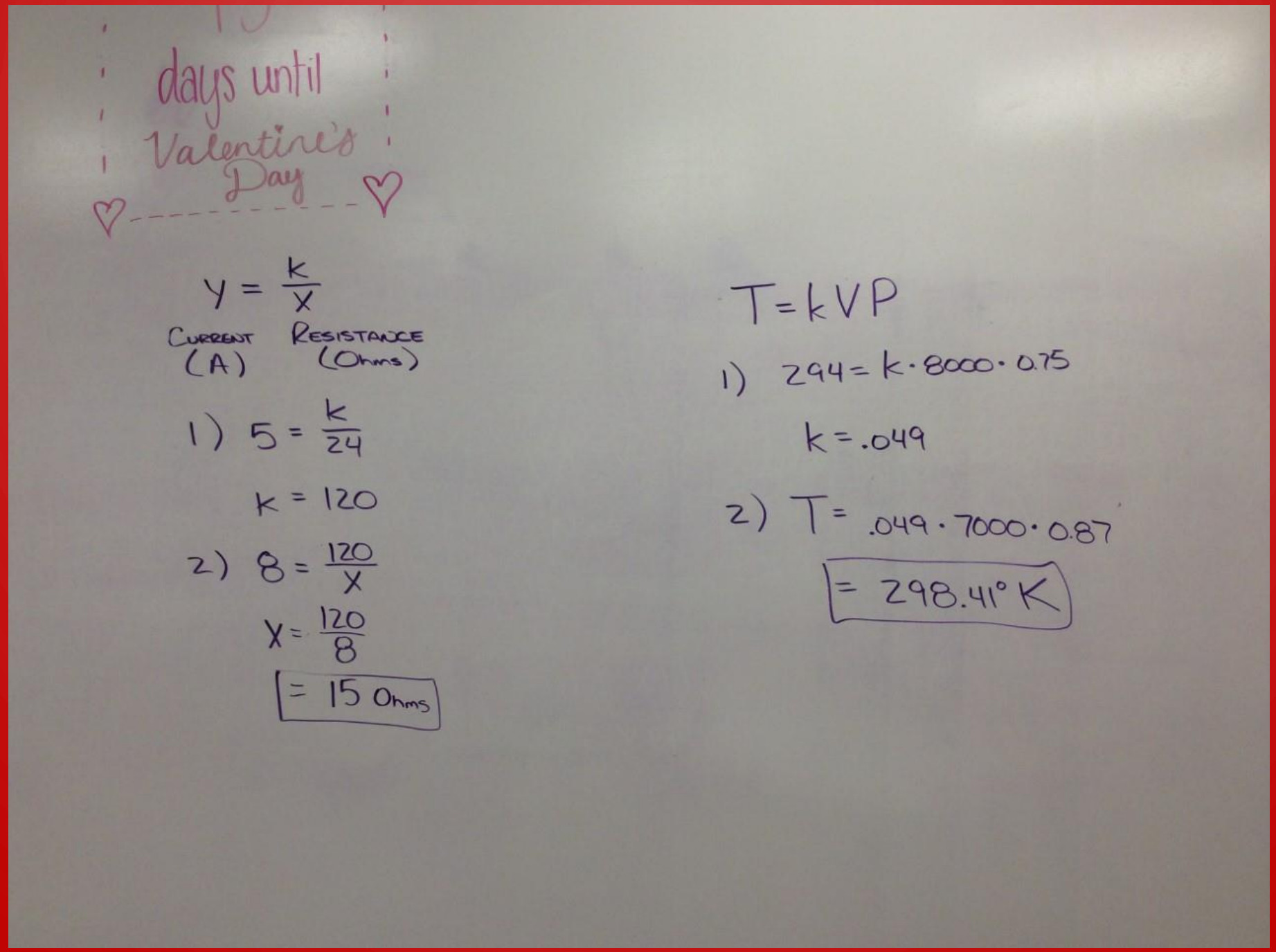
I WILL BE ABLE TO COMPLETE MY HOMEWORK GIVEN THE

- Equation


1) SETUP PROBLEM
W/ KNOWN VALUES
TO SOLVE FOR
K (VARIATION CONSTANT)
2) SOLVE FOR UNKNOWN
VALUE


connect
and communicate
mathematical ideas
mathematical
language in
written or oral
communication
DIRECT
$y = kx$
1) $25 = k15$
$k = \frac{25}{15}$
$= \frac{5}{3}$
2) $40 = \frac{5}{3}x$
$40 \cdot \frac{3}{5} = x$
$x = 24$
INVERSELY
$y = \frac{k}{x}$
1) $22 = \frac{k}{6}$
$k = 132$
2) $15 = \frac{132}{x}$
$15x = 132$
$x = \frac{132}{15}$
$= \frac{44}{5}$
LOAD
$y = kx$
STRETCH
1) $3.6 = k15$
$k = .24$
2) $6 = .24x$
$x = \frac{6}{.24}$
$= 25kg$


days
Valen
$r = \frac{kst}{u}$
1) $18 = \frac{k \cdot 2 \cdot 3}{4}$
$k = 12$
2) $6 = \frac{12 \cdot s \cdot 2}{4}$
$s = 1$
$x = kyz^2$
1) $100 = k \cdot 2 \cdot 5^2$
$k = 2$
2) $x = 2 \cdot 4 \cdot 3^2$
$= 8 \cdot 9$
$= 72$
y =
CURRENT
(A)
1)
2)


days until
Valentine's
Day
$y = \frac{k}{x}$
Current (A)
Resistance (Ohms)
1) $5 = \frac{k}{24}$
$k = 120$
2) $8 = \frac{120}{x}$
$x = \frac{120}{8}$
= 15 Ohms
$T = kVP$
1) $294 = k \cdot 8000 \cdot 0.75$
$k = .049$
2) $T = .049 \cdot 7000 \cdot 0.87$
$= 298.41° K$