Today's Plan:

Learning Target (standard): I will review for the semester exam.

Students will: Complete practice problems over previous concepts at the boards and study for my exam.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuarcy and provide students feedback, describe and provide examples of exam problems.

Assessment: Board work

Differentiation: Students will work at the board, actively engage in practice review concepts with the aid of other students and the teacher.

Write the equation of the line in standard form.

$thru(1,-2)$ perpendicular to $-5x+2y=8$

$m_\perp = -\frac{2}{5}$

$y=mx+b$

$-2=-\frac{2}{5}(1)+b$

$5\left[-2=-\frac{2}{5}+b\right]$

$-10=-2+5b$

$-8=5b$

$b=-\frac{8}{5}$

$2y=5x+8$

$y=\frac{5}{2}x+4$

$m=\frac{5}{2}$

$y=-\frac{2}{5}x-\frac{8}{5}$

$5\left[\frac{2}{5}x+y=-\frac{8}{5}\right]$

$2x+5y=-8$

A concessions stand sold a total of 138 small and large popcorns. A small popcorn costs $2.50, and a large popcorn costs $4.00. Total popcorn sales were $466.50. How many large popcorns were sold?

① x = small popcorn
y = large popcorn

② $x+y=138$ (×−4)
$2.5x+4y=466.5$

③ $-4x-4y=-552$
$2.5x+4y=466.5$
$-1.5x=-85.5$
$x=57$

$57+y=138$
$y=81$

④ ∴ There were 57 small popcorns & 81 large popcorns sold.

Writing Prompts:

- Describe the 3 types of systems and their solutions. Be sure to provide a graphical example of each type of system and describe slopes and intercepts.
- Describe the properties of parallel and perpendicular lines. Provide examples through equations and graphs.
- Describe the meaning of the solution set of a system of inequalities. Be sure to include an explanation about the lines as well as the shaded region. Provide examples to support your description.