STANDARD II: The student will be able to solve equations and inequalities.

OBJECTIVE

4. Solve multi-step inequalities of first degree.

ELIGIBLE CONTENT

A negative coefficient may be used. ٠

SAMPLE ITEMS

1

Solve: 3k - 7(k+5) - 5 < 0

A *k* < -10 **B** *k* > −10

- $\mathbf{C} \quad k < 0$
- **D** k > 0

Solve: $\frac{2}{3}x \ge -4$ 2

> A $x \ge -\frac{8}{3}$ **B** $x \leq -\frac{8}{3}$

 $\mathbf{C} \quad x \ge -6$

D $x \leq -6$

TIP: Use the GRI

Golden Rule of Inequalities

Whatever you do to one side, do to the other... PLUS, if YOU multiply or divide BY A NEGATIVE, "flip" the inequality symbol.

3 Solve:
$$3x + 5 < x - 4$$

A $x < -4$
B $x > -4$
C $x < 1$
D $x > 1$

Solve: 3x + 5 < x - 3

4 Solve:
$$4(x-2) \ge -2(3-3x)$$

A
$$x \ge -1$$

B
$$x \leq -1$$

 $\mathbf{C} \quad x \ge 1$

D
$$x \leq 1$$