

DISTRIBUTE!

LEARNING GOAL

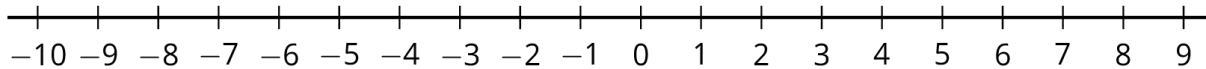
1. I can apply the distributive law to solve linear inequalities in one variable.

REVIEW

Solve $20 - 6p \geq 2$

Check:

Graph:



MAKING THE GRADE

Jenna received a 70% on a math assignment. To get at least an 80% in math class, her grade on the next assignment must be a solution to the inequality:

$$\frac{1}{2}(70 + x) \geq 80$$

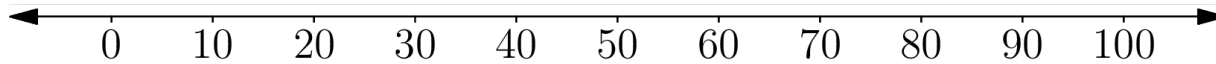
On the next slide, you will help her find what grade she needs.

EXAMPLE 1

Solve $\frac{1}{2}(70 + x) \geq 80$

Check:

Graph:



FIND THE MISTAKE

One of the solutions contains a mistake. What is the mistake? Circle it and explain.

Solution 1

$$2(x + 10) \geq 30$$

$$2x + 20 \geq 30$$

$$\begin{array}{r} -20 \quad -20 \\ \hline \end{array}$$

$$2x \geq 10$$

$$x \geq 5$$

Solution 2

$$2(x + 10) \geq 30$$

$$\begin{array}{r} -10 \quad -10 \\ \hline \end{array}$$

$$2x \geq 20$$

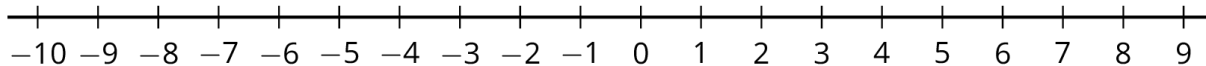
$$x \geq 10$$

EXERCISE 1

Solve $13 - 2a \geq 21$

Check:

Graph your solution:



FIND THE MISTAKE

One of the solutions contains a mistake. What is the mistake? Circle it and explain.

Solution 1

$$\begin{array}{r} x + 2 > 8 \\ -2 \quad -2 \\ \hline x > 6 \end{array}$$

Solution 2

$$\begin{array}{r} x + 2 > 8 \\ -2 \quad -2 \\ \hline x < 6 \end{array}$$

FIND THE MISTAKE

One of the solutions contains a mistake. What is the mistake? Circle it and explain.

Solution 1

$$-\frac{1}{2}x > 8$$

$$(-2) \cdot -\frac{1}{2}x > (-2) \cdot 8$$

$$x > -16$$

Solution 2

$$-\frac{1}{2}x > 8$$

$$(-2) \cdot -\frac{1}{2}x < (-2) \cdot 8$$

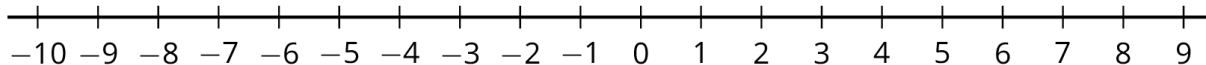
$$x < -16$$

DISTRIBUTE TO SOLVE

Solve $2(5 + 3a) \geq 40$

Check:

Graph:

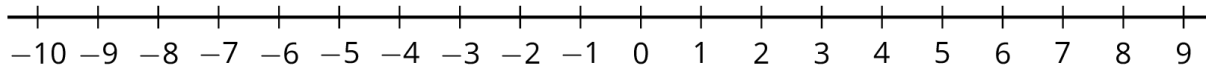


DISTRIBUTE TO SOLVE

Solve $3(4 - 2a) \geq 18$

Check:

Graph:



FINDING THE AVERAGE

Edmond took 3 tests and scored 80%, 90%, and 84%.
What was his average test score?