The cost of apples is $1.99 per pound and the cost of pears is $2.48 per pound. When I bought some apples and pears I spent $22.61. It turns out that I bought twice as many pounds of apples as pears . Write and solve a system of equations to find out how many pounds of each I bought.

A = # of lbs of apples
P = " " " " pears

A = 7 lbs
P = 3.5 lbs

$1.99A + 2.48P = 22.61$

$A = 2P$

$A - 2P = 0$

using matrices

$X = A^{-1}B = \begin{bmatrix} 7 \\ 3.5 \end{bmatrix} \leftarrow \begin{bmatrix} 1.99 & 2.48 \\ 1 & -2 \end{bmatrix} X = \begin{bmatrix} 22.61 \\ 0 \end{bmatrix}$

Solve.

$24\left(\frac{w}{8} - \frac{w}{12} + \frac{w}{3}\right) = (5)24$

$3w - 2w + 8w = 120$

$\frac{9w}{9} = \frac{120}{9}$

$w = \frac{120}{9}$

Solve.

$12\left(\frac{2m}{3} - \frac{7m}{6} + \frac{m}{12}\right) = (4)12$

$8m - 14m + m = 48$

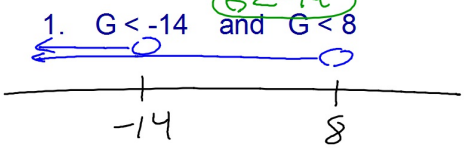
$\frac{-5m}{-5} = \frac{48}{-5}$

$m = \frac{48}{-5}$

State the solution to each compound inequality. Give answers as a single statement if possible.

1. G < -14 and G < 8

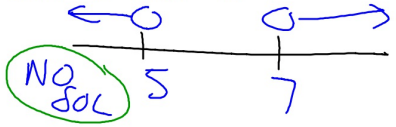
$G < -14$



2. M ≥ 3 or M ≤ 12

R

3. A < 5 and A > 7



NO SOL

Solve for E.

$$X(NV+E)-Y=Z \quad +Y$$

$$\frac{X(NV+E)}{X}=\frac{Z+Y}{X}$$

$$NV+E=\frac{Z+Y}{X}-NV$$

$$E=\frac{Z+Y}{X}-NV$$

Restrictions:

$X \neq 0$