Step-by-Step 1

Lesson 6.1, Question 9

Step 1 How many key chains did Eli keep for himself? _____

How many key chains did Eli have to start with? _____

How many key chains did Eli have left to share among his friends? _____

Step 2 Let *f* represent the number of friends who were given key chains.
Use *f* and a number from *Step 1*.
Write an expression to represent how many key chains each friend was given.

_____

Each friend was given 24 key chains. Write an equation you can solve to find how many friends were given key chains.

_____

Step 3 Solve the equation in *Step 2* by inspection.

Step 4 Solve the equation in *Step 3* by systematic trial.

Step 5 Which method was easier to use? _____

Explain your choice. _____

Step-by-Step 2

Lesson 6.2, Question 5

Use masses that are multiples of 5 g.

Step 1   Sketch a balance scales to represent the equation $x + 35 = 60$.

Step 2   Write 3 different ways to get a sum of 35.

_____ _____ _____

Step 3   Use your results from *Step 2*.
Add one number to each to get a sum of 60.

_____ _____ _____

Step 4   Use one way from *Step 2* and one way from *Step 3*.
Sketch a balance scales to represent the equation $x + 35 = 60$.
Do this three times.

Step 5   Use one of the balance scales in *Step 4*.
Remove the same masses from each pan to leave *x* alone in one pan.
What mass does *x* balance? _____

What is the solution of the equation $x + 35 = 60$? _____

Step 6   Verify the solution by replacing *x* with the value of *x* from *Step 5*.

Step-by-Step 3

Lesson 6.3, Question 6

You will need algebra tiles.

Step 1   Solve the equation $x + 6 = 13$ using algebra tiles.

Step 2   Solve the equation $x + 6 = 13$ by inspection.

Step 3   Verify the solution. Show your work.

Step 4   Solve the equation $n - 6 = 13$ using algebra tiles.

Step 5   Solve the equation $n - 6 = 13$ by inspection.

Step 6   Verify the solution. Show your work.

Step-by-Step 4

Lesson 6.4, Question 7

Step 1   Let *n* represent the number of weeks Sunita saves.

Each week Sunita saves $24.

How much will Sunita save in *n* weeks? _____

Step 2   Sunita started with $72 in her savings account.

An algebraic expression for Sunita's total savings after *n* weeks is:

_____

Sunita saved $288.

The equation is: _____

Step 3   Use algebra to solve the equation in *Step 2*.

When will Sunita have $288 in her savings account? _____

Step 4   To verify the solution, substitute the solution from *Step 3* into the original equation.

Left side =   Right side =

=

=

=

Is your solution correct? Explain.

_____

_____

Step-by-Step 5

Lesson 6.5, Question 6

Step 1   Let *n* represent the number of months for which Carla downloads.

Each month Carla downloads 8 additional songs.

How many additional songs will she download in *n* months? _____

Step 2   Carla started with 20 songs downloaded to her MP3 player.

An algebraic expression for the total number of songs downloaded after *n* months is:

_____

Carla downloaded a total of 92 songs.

The equation is: _____

Step 3   Use any method to solve the equation in *Step 2*.

After how many months will Carla have a total of 92 songs? _____

Step 4   Which method did you choose to solve the equation?

_____

Explain why you chose this method.

_____

_____