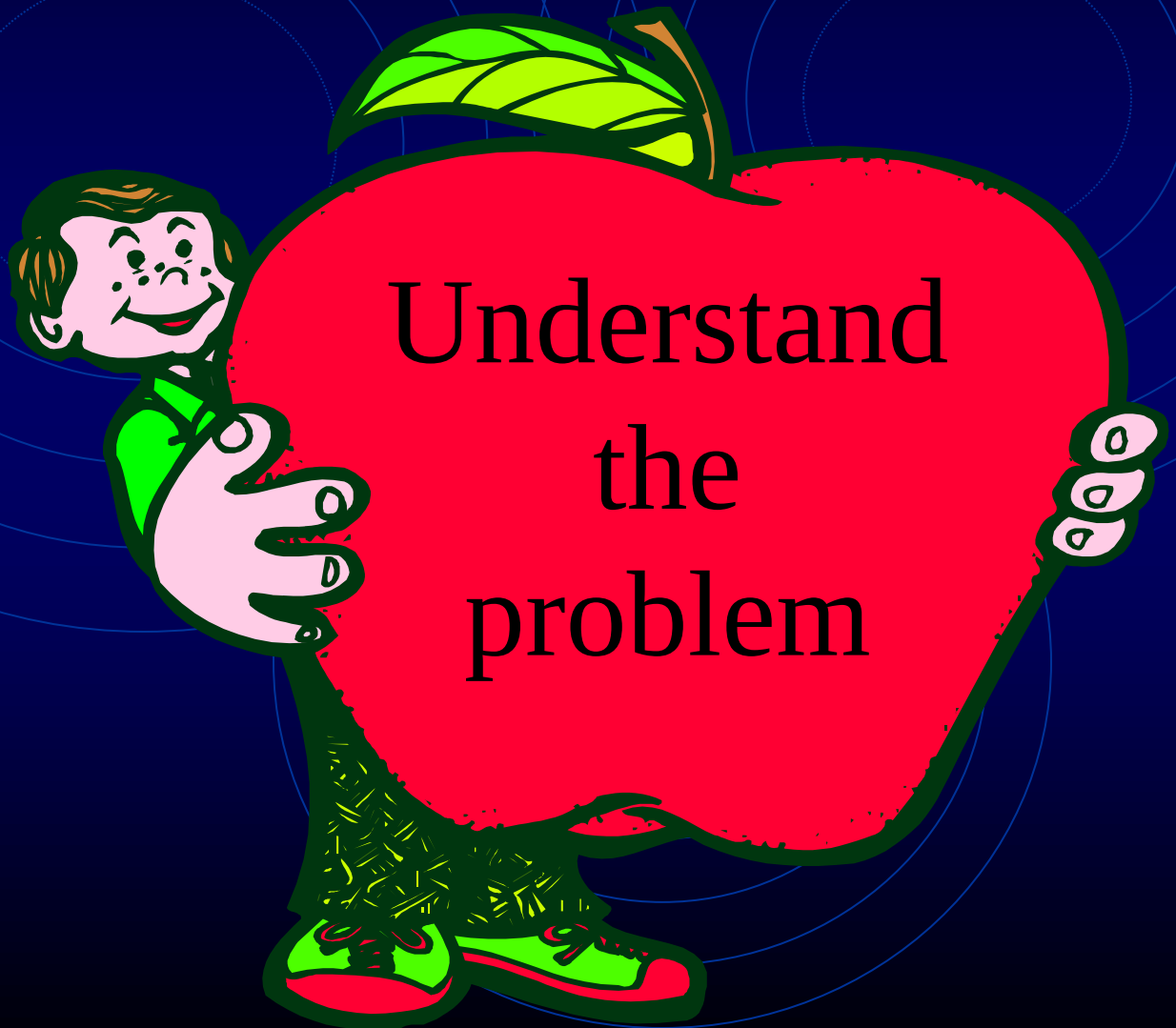
Problem Solving
Part 2

by Monica Yuskaitis

Problem Solving is easy if you follow these steps



Step 1 – Understand the problem

- Read the problem carefully.
- Find the important information.
- Write down the numbers.
- Identify what the problem wants you to solve.
- Ask if your answer is going to be a larger or smaller number compared to what you already know.

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Read the problem carefully.

- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

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- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

Total = 31 1st week =14

2nd week = ?

Step 1 - Understand the Problem

Ask if your answer is going to be a larger or smaller number compared to what you already know.

Total = 31 1st week =14

2nd week = ?

It will be smaller than the total but may or may not be smaller than the first week.

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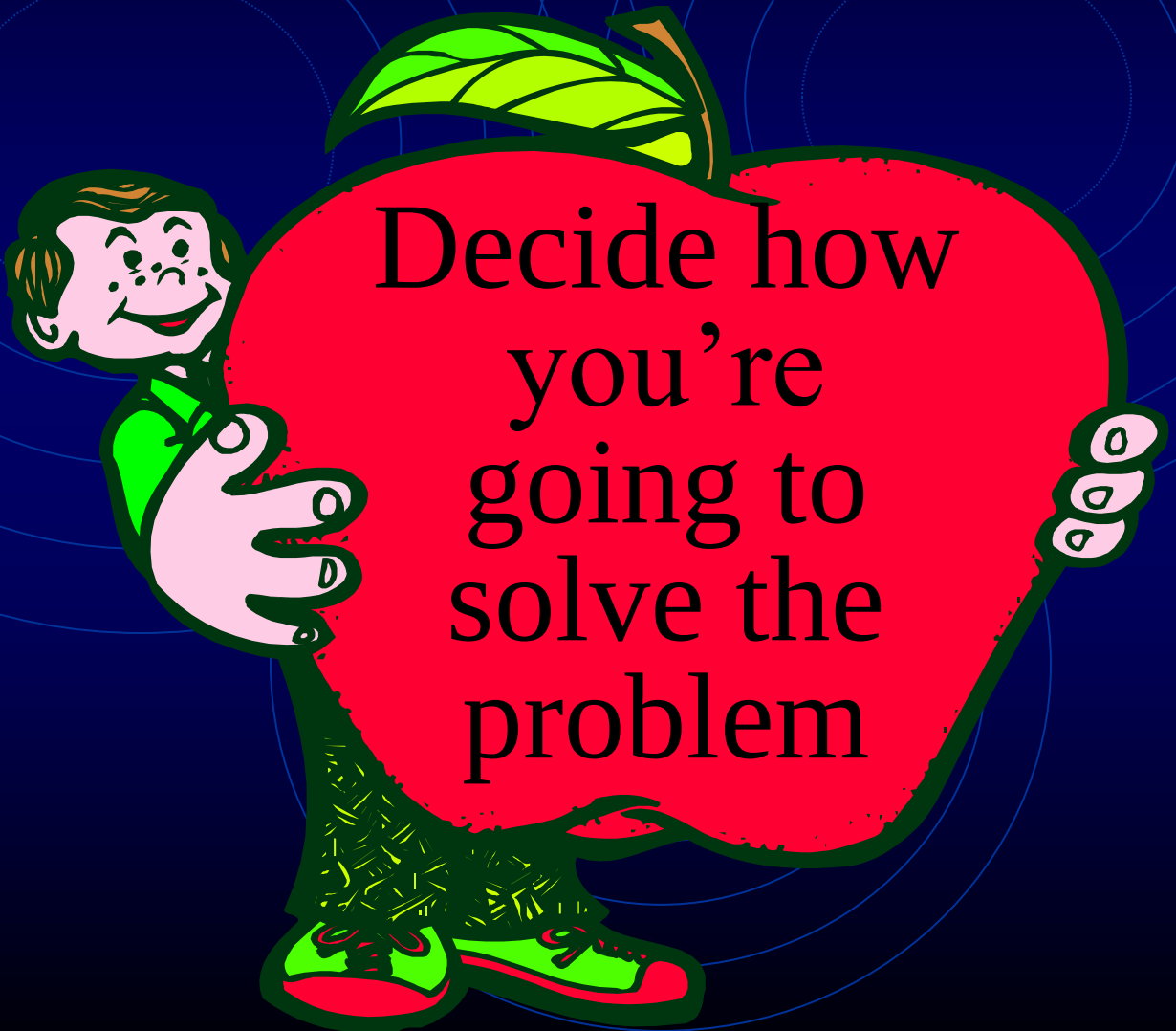

Step 2 - Decide how you're going to solve the problem

Choose a method

Use a graph

Write an equation

Find a pattern

Use reasoning

Make a table

Use formulas

Make a list

Work backwards

Draw a picture

Act it out

Step 2 - Decide how you're going to solve the problem

Write your equation

Total = 31 1st week =14

2nd week = ?

Since I know both weeks total 31 I write

$14 + s = 31$

Step 2 - Decide how you're going to solve the problem

Write your equation

Total = 31 1st week =14

2nd week = ?

I can use the inverse operation to solve for s

$14 + s = 31$ $31 - 14 = s$

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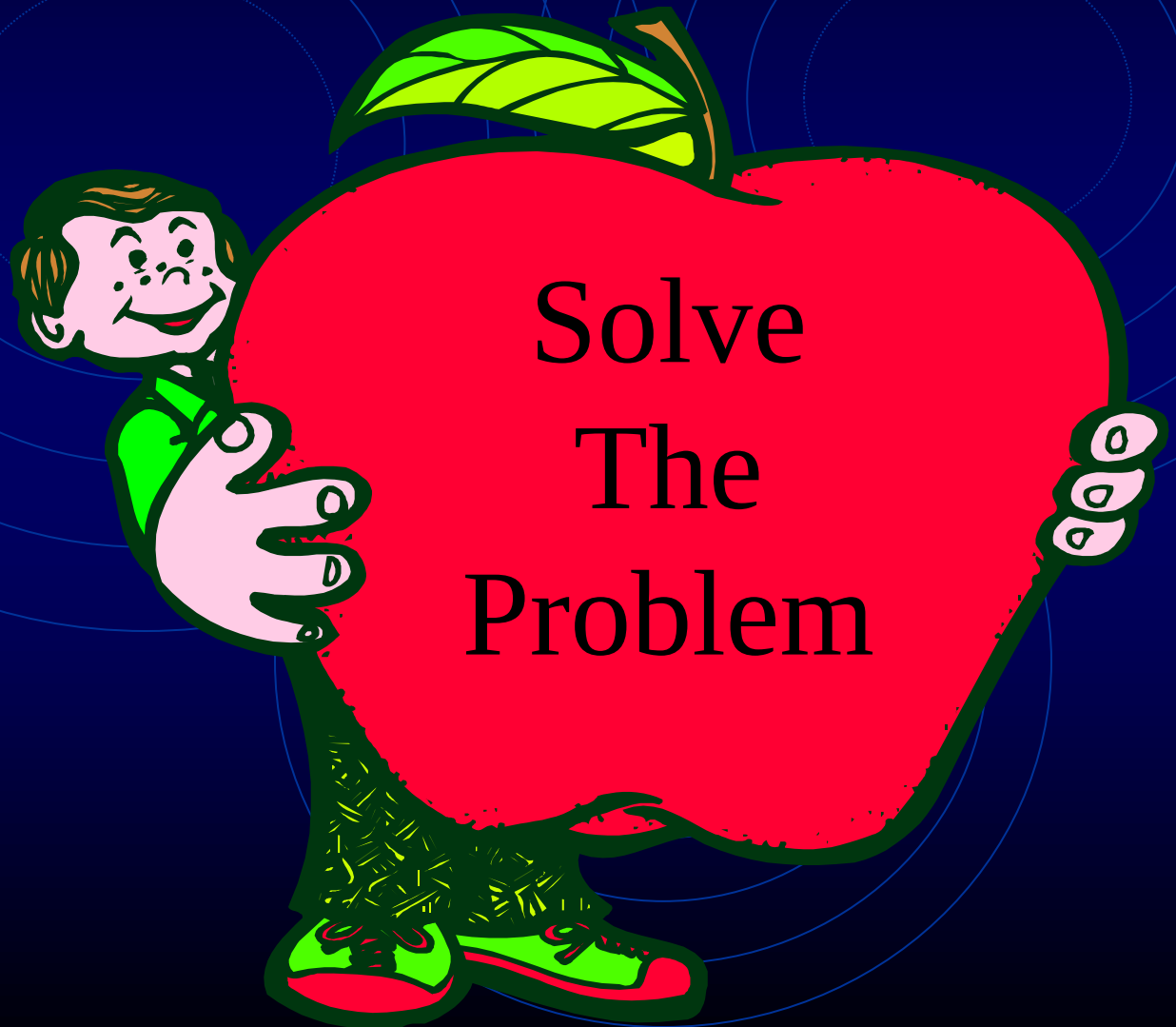

Step 3 - Solve the problem

Total = 31 1st week =14

2nd week = ?

$$\begin{array}{r} 2 \\ 3\,\not{1}\,1 \\ -\ 1\ 4 \\ \hline 1\ 7 \end{array}$$

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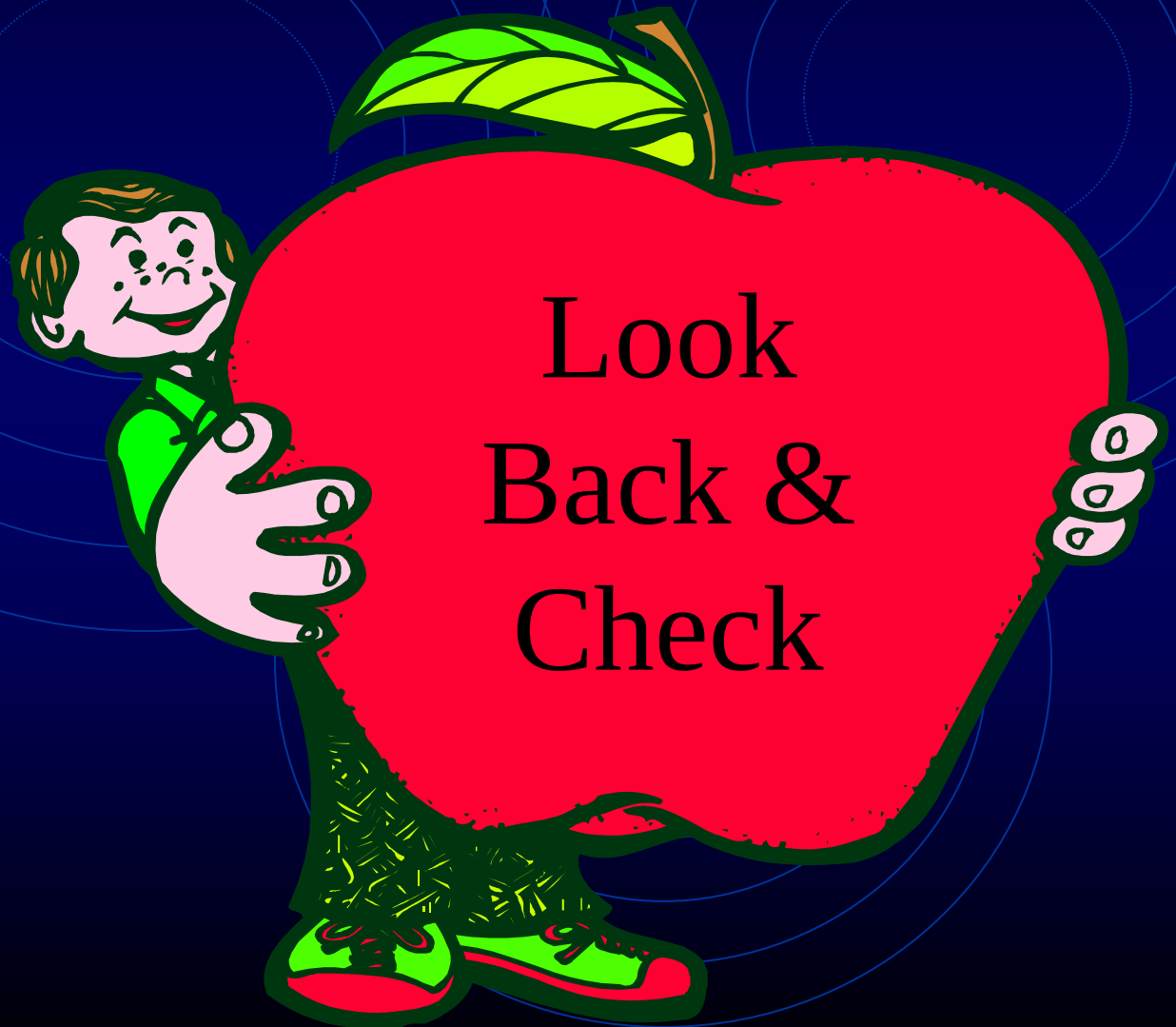

Step 4 - Look Back & Check

Reread the problem

- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

Total = 31 1st week =14

Step 4 - Look Back & Check

Substitute your new number

- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

Total = 31 1st week =14

2nd week = 17

Step 4 - Look Back & Check

Substitute your new number

- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

$$14 + \underline{17} = 31$$

Step 4 - Look Back & Check

Did your new number work?

- Luis earned 14 Accelerated Reading points the first week of November. At the end of the following week he had a total of 31 points. How many points did he earn the second week?

14 + 17 = 31 Yes!

Write an equation to solve this problem.

- Jaylynn had $84.75 in her savings account. She made a deposit. Her new balance was $107.03. How much was her deposit?

$$\$84.75 + d = \$107.03$$

Inverse operation

$$\$107.03 - \$84.75 = d$$

Write an equation to solve this problem.

- Anthony has twice as many pokemon cards as Joshua. If Anthony has 124 cards, how many does Joshua have?

$2 \times d = 124$ $2d = 124$

inverse operation $d = 124/2$

Write an equation to solve this problem.

- Vicki baked 90 cookies . If there are 15 cookies in each batch. How many batches did she bake?

$15 \times b = 90$ $15b = 90$

inverse operation $b = 90/15$

Write an equation to solve this problem.

- Navneet has 3 times as many CD's as Arlene. If Navneet has 36 CD's, how many does Arlene have?

$3 \times c = 36$ $3c = 36$

inverse operation $c = 36/3$

Write an equation to solve this problem.

- A square has a perimeter of 48 inches. What is the length of each side of the square.

$4 \times s = 48$ $4s = 48$

inverse operation $s = 48/4$

Write an equation to solve this problem.

- One year the city ambulance responded to emergencies on 293 days. How many days were there no emergencies?

$$293 + d = 365$$

inverse operation $d = 365 - 293$