MathShed

Starter:

If the equations below are the second and third steps in a sequence, what would come before? What would come afterwards? What is happening?

	$x + 2 = 9$ $x = 9 - 2$ $\underline{x = 7}$	$x + 3 = 9$	

Explain your answer.

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Activity 1:

Mrs Jones' class are trying to solve the following equation:

$$\blacksquare + \bullet = 15$$

Use the table below to show examples of each piece of equipment's value:

cube						
counter						

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Activity 2:

m and w are variables.

$$m + w = 80$$

Use the table below to show possible values for each letter:

m						
w						

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Activity 3:

Mr Smith buys two pieces of fruit at the shop. He spends 75 p in total.

List possible prices for each piece of fruit in the table below:

🍊						
🍌						

Is it possible that the orange cost 80 p? Explain your answer.

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Activity 4:

k and w are both positive whole numbers.

$$k + w = 9$$

Complete the table below systematically.

k	0	1	2						
w									
$k + w$	9	9							

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Activity 5:

j and v are both positive whole numbers less than 20.

$$j - v = 7$$

Complete the table below systematically.

j								
v								
$j - v$								

To be able to find pairs of values (1)

Activity 6:

t and h are both positive whole numbers.

$$th = 36$$

Complete the table below systematically.

t									
h									
th									

To be able to find pairs of values (1)

Activity 7:

Ruth has three letter cards: | a | | b | | c |

- The total value of the three cards combined is 15.
- a is worth the most and c is worth the least, they do not share a value.
- All of the cards have a positive value of 1 or more.

List possible sets of values below.

a									
b									
c									

To be able to find pairs of values (1)

Activity 8:

Jamal is plotting co-ordinates that match the rule:

$$y - x = 3$$

Which co-ordinates can he plot on the grid provided?

To be able to find pairs of values (1)

Evaluation:

If the scales are balanced, it is possible the purple gift weighs 217 g and the blue weighs 393 g.

Do you agree?

Provide a list of possible values to explain your answer.