

Find pairs of values (1)

1 a) Here is an equation.

$$\text{Green Circle} + \text{Blue Square} = 12$$

Find six possible pairs of values for the circle and square.

e.g.

	1	2	3	4	5	6
	11	10	9	8	7	6

b) Here is another equation.

$$x + y = 12$$

Find six possible pairs of values for x and y .

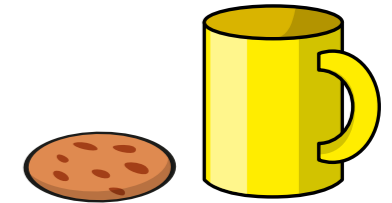
e.g.

x	1	2	3	4	5	6
y	11	10	9	8	7	6

c) What is the same and what is different about part a) and part b)?

Answers are the same, representations are different.

2 Kim buys these two items from a cafe.
The total cost is 90p.



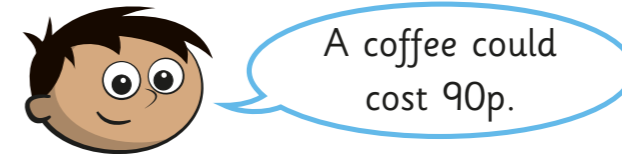
a) What could the cost of each item be?

e.g.

	10p	20p	30p	40p	50p	60p
	80p	70p	60p	50p	40p	30p

b) Compare answers with a partner.

c)



Is this possible? No

Explain your answer.

The cookie wouldn't cost anything.

3 a and b are whole numbers.

$$a + b = 8$$

Complete the table to show different possible values for a and b .

a	0	1	2	3	4	5	6	7
b	8	7	6	5	4	3	2	1
$a + b$	8	8	8	8	8	8	8	8

What patterns do you notice?



- 4 c and d are both numbers less than 20

$$c - d = 4$$

Complete the table to show possible values for c and d .

c	19	18	17	16	15	14	13	12
d	15	14	13	12	11	10	9	8
$c - d$	4	4	4	4	4	4	4	4

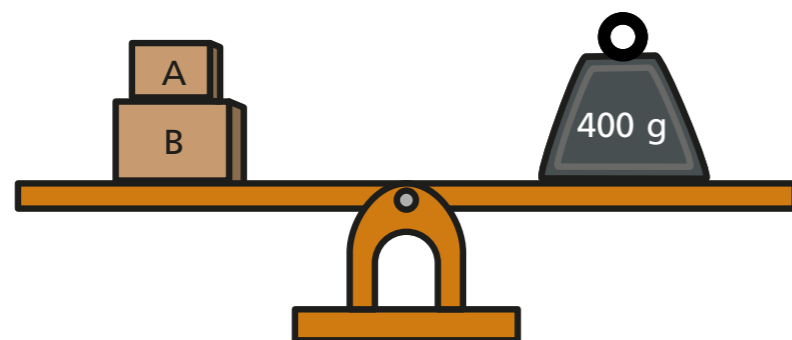
- 5 a and b are integers.

$$ab = 24$$

List all the possible values for a and b .

a	1	2	3	4	6	8	12	24
b	24	12	8	6	4	3	2	1

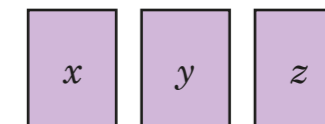
- 6 Some scales are balanced.



What could the masses of the boxes be?

eg $A = 100\text{g}$ $B = 300\text{g}$

- 7 Rosie has three number cards.



- The sum of the cards is 12
- x is greater than y and y is greater than z .
- All the numbers are greater than zero.

List all the possible values of x , y and z .

x	9	8	7	6	7	6	5
y	2	3	4	5	3	4	4
z	1	1	1	1	2	2	3

- 8 Eva is plotting co-ordinates (x, y) on a grid. She is only plotting co-ordinates where $x + y = 10$. Plot all the points Eva can plot on the grid.

