1 **a)** Here is an equation.

$$\bigcirc + \blacksquare = 12$$

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

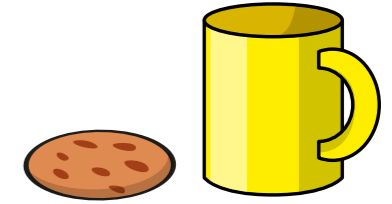| $\bigcirc$						
$\blacksquare$						

b) Here is another equation.

$$x + y = 12$$

Find six possible pairs of values for x and y.

x						
y						

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

_____

_____

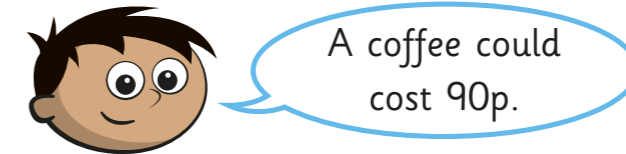**2** Kim buys these two items from a cafe.

The total cost is 90p.

a) What could the cost of each item be?

🍪						
🥛						

b) Compare answers with a partner.

c)

A coffee could cost 90p.

Is this possible? _____

Explain your answer.

_____

_____

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					
b								
$a + b$	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.
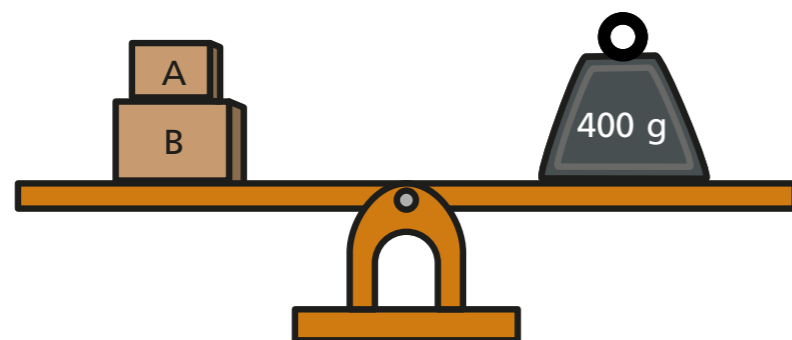
c								
d								
$c - d$								

5 a and b are integers.
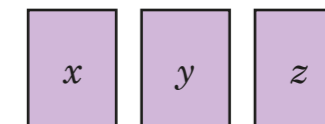
$$ab = 24$$

List all the possible values for a and b.

_____

_____

6 Some scales are balanced.

What could the masses of the boxes be?

A = [   ]   B = [   ]

7 Rosie has three number cards.

| x | y | z |

- 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								
y								
z								

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.