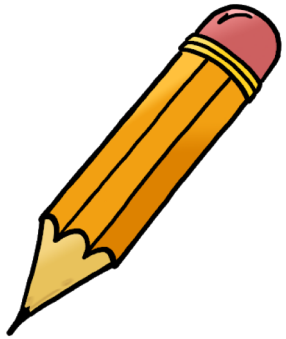
Year 6

Tuesday 23rd June 2020

Maths

LO: Find pairs of values



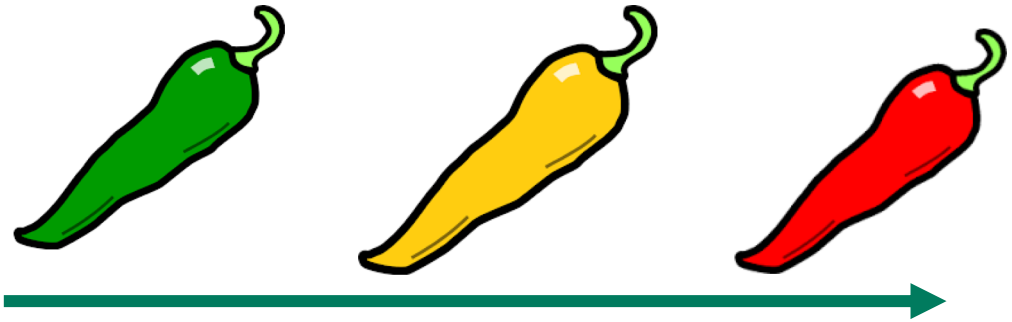
The video of this lesson is available here – Summer Term – Week 8 - lesson 2

This link works on the printable version and is available above the PowerPoint.

You will need to watch this video to learn the skills you need in this lesson.

The independent work continues on the next two slides. There are 7 questions and 1 extension.

(Espanol - siete preguntas y una extensión)



The chili suggests a good starting point depending on how confident you are feeling.
If you have time you can complete all the independent work!

Find pairs of values (2)

1 Class 6 are trying to solve a number puzzle.

▲ + ▲ + ● = 10

a)

The triangle could be 3 and the circle could be 4

Dexter

Do you agree with Dexter? _____

Explain why.

_____

_____

b)

The triangle is worth 4

Dora

What is the value of the circle in Dora's number puzzle?

● = ☐

c) Find other pairs of values that the triangle and circle could equal.

Find three pairs.

▲ = ☐ ● = ☐ ▲ = ☐ ● = ☐

▲ = ☐ ● = ☐

2 a and b are whole numbers.

$2a + b = 14$

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

a	0	1	2	3	4	5	6	7
$2a$	0	2						
b	14							
$2a + b$	14	14	14	14				

3 c and d are both integers less than 15 but greater than zero.

$3c - d = 2$

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

c	1	2	3	4	5
$3c$	3				
d	1				
$3c - d$	2	2	2		

b) Explain why there are no other possible values for c and d.

_____

_____

4 x and y are both multiples of 5 less than 100

If $2x = y$, circle the possible values of x and y.

$x = 20, y = 20$

$x = 10, y = 20$

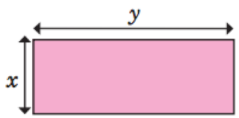
$x = 20, y = 10$

$x = 35, y = 70$

$y = 90, x = 45$

5 Here is a rectangle.

x and y are both integers.



The rectangle has a perimeter of 28 cm.

a) Write an equation to represent the perimeter of the rectangle.

b) List all the possible pairs of values for x and y.

Compare answers with a partner. How do you know you have found all the possible values?

6 Aisha is buying some stationery for school.

She spends exactly £1

List the possible combinations of pencils and pens that Aisha could have bought.

7 Ron has four digit cards.

- Two of the cards have the same value.
- All of the cards are less than 10 but greater than zero.
- All of the cards are odd.
- The sum of the four cards is 24

Find two possible sets of cards.

Set 1 ☐ ☐ ☐ ☐

Set 2 ☐ ☐ ☐ ☐

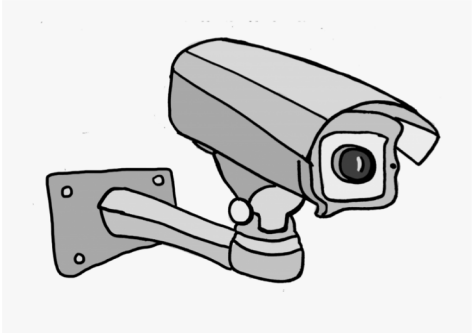
Ext:

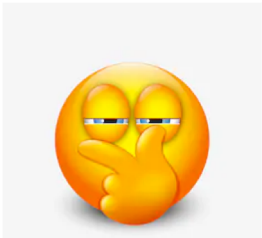
$2ab = 48$

a) Find a pair of possible values for a and b.

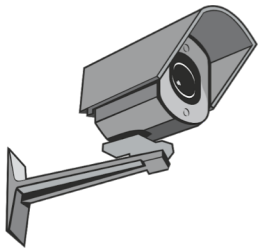
$a =$ ☐ $b =$ ☐

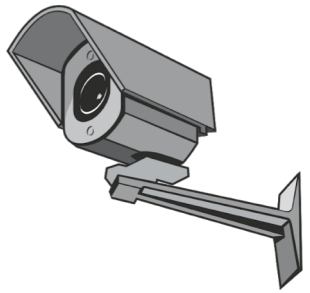
b) Work with a partner to find as many pairs of values as you can.





The next two slides contain the answers should you wish to check you work and reflect on what you understand.





Find pairs of values (2)

1 Class 6 are trying to solve a number puzzle.

▲ + ▲ + ● = 10

a)

The triangle could be 3 and the circle could be 4

Dexter

Do you agree with Dexter? Yes

Explain why.

3 + 3 + 4 = 10

b)

The triangle is worth 4

Dora

What is the value of the circle in Dora's number puzzle?

● = 2

c) Find other pairs of values that the triangle and circle could equal.

Find three pairs.

▲ = 1 ● = 8

▲ = 5 ● = 0

▲ = 2 ● = 6

2 a and b are whole numbers.

$2a + b = 14$

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

a	0	1	2	3	4	5	6	7
$2a$	0	2	4	6	8	10	12	14
b	14	12	10	8	6	4	2	0
$2a + b$	14	14	14	14	14	14	14	14

3 c and d are both integers less than 15 but greater than zero.

$3c - d = 2$

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

c	1	2	3	4	5
$3c$	3	6	9	12	15
d	1	4	7	10	13
$3c - d$	2	2	2	2	2

b) Explain why there are no other possible values for c and d.

If c was 16 d would be greater than 15

4 x and y are both multiples of 5 less than 100

If $2x = y$, circle the possible values of x and y.

$x = 20, y = 20$

$x = 10, y = 20$

$x = 20, y = 10$

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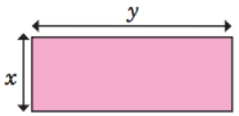

The rectangle has a perimeter of 28 cm.

a) Write an equation to represent the perimeter of the rectangle.

$2x + 2y = 28$

b) List all the possible pairs of values for x and y.

$x = 1$ $y = 13$ $x = 5$ $y = 9$

$x = 2$ $y = 12$ $x = 6$ $y = 8$

$x = 3$ $y = 11$

$x = 4$ $y = 10$

Compare answers with a partner. How do you know you have found all the possible values?

6 Aisha is buying some stationery for school.

She spends exactly £1

List the possible combinations of pencils and pens that Aisha could have bought.

10 pencils 6 pens & 1 pencil

2 pens & 7 pencils

4 pens & 4 pencils

7 Ron has four digit cards.

- Two of the cards have the same value.
- All of the cards are less than 10 but greater than zero.
- All of the cards are odd.
- The sum of the four cards is 24

Find two possible sets of cards.

Set 1	1	5	9	9
Set 2	1	7	7	9

Ext:

$2ab = 48$

a) Find a pair of possible values for a and b.

e.g. $a =$ 6 $b =$ 4

b) Work with a partner to find as many pairs of values as you can.