

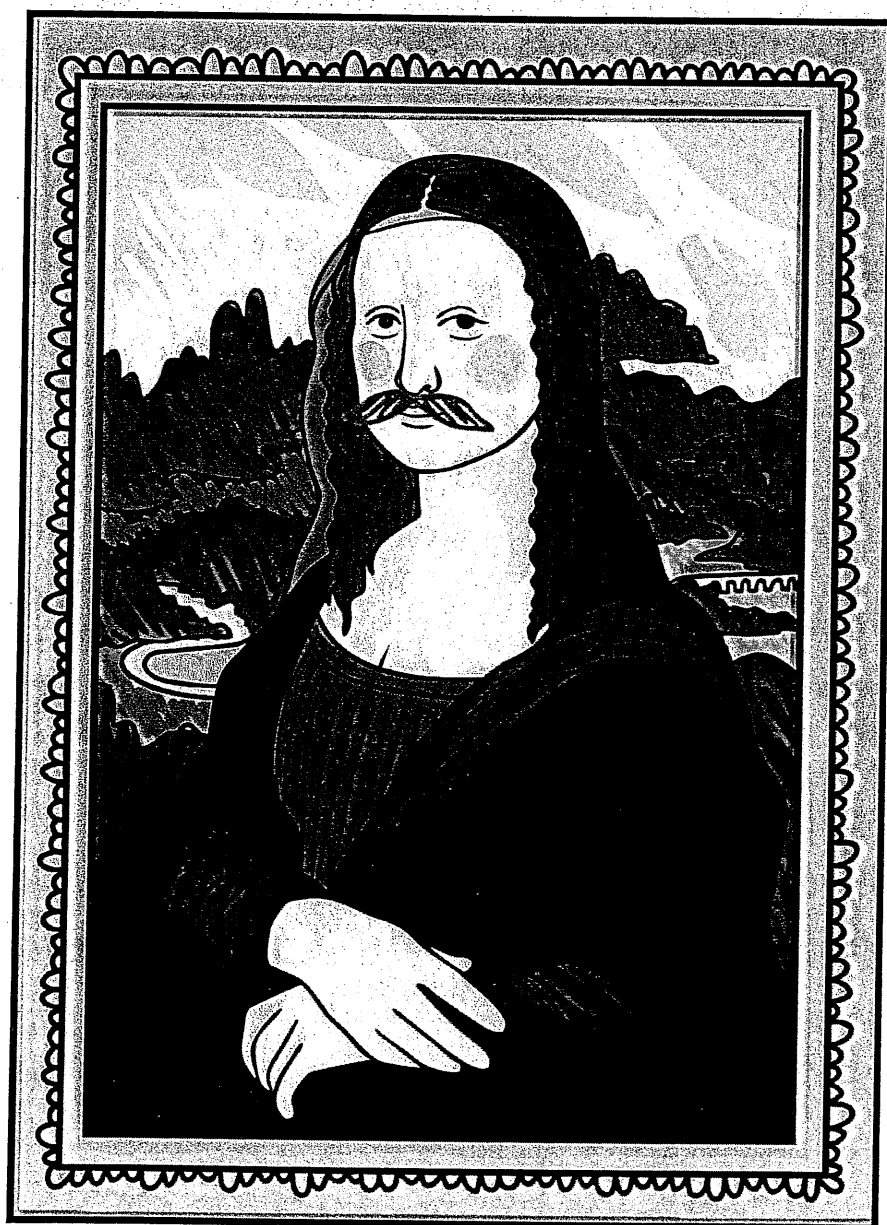
The Mystery at the Grand Portrait Gallery

The pupils of Masters Academy are going on a school trip to the Grand Portrait Gallery. They have been studying famous artists and are excited at the thought of seeing their favourite and most famous portraits at the gallery.

When they arrive, they are led into the reception area where they are counted twice for good measure and then told which groups they are in.

However, disaster has struck! Some budding artist has sneaked away from the group and, with their felt tip pen, drawn moustaches on all the portraits!

Your task is to use the evidence and the descriptions of the suspects to identify the mystery moustache meddler!



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Description of Suspects

Name	Male/ Female	Height	Group Name	Type of Chocolate in Lunchbox	Shoe Size
Alesso	m	tall	Klee	Caramel Bite	5
Bridget	f	short	Mondrian	Dippy Duo	5
Claude	m	tall	Klee	Caramel Bite	3
Dora	f	tall	Cézanne	Dippy Duo	5
Eugene	m	tall	Klee	Dippy Duo	3
Frieda	f	short	Mondrian	Nutty Choc	3
Georgia	f	tall	Klee	Caramel Bite	4
Hans	m	short	Cézanne	Nutty Choc	3
Ingrid	f	tall	Klee	Caramel Bite	5
Jean	m	tall	Mondrian	Dippy Duo	3
Kiki	f	tall	Cézanne	Caramel Bite	5
Louis	m	short	Mondrian	Dippy Duo	4
Maya	f	tall	Monet	Dippy Duo	3
Nicolas	m	tall	Klee	Caramel Bite	5
Orlan	m	tall	Klee	Dippy Duo	4
Pierre	m	short	Mondrian	Dippy Duo	4
Raphael	m	tall	Klee	Caramel Bite	4
Sisco	m	tall	Monet	Nutty Choc	4
Tomas	m	tall	Klee	Choco Glory	4
Veronique	f	short	Monet	Caramel Bite	5

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Clue 1: Forwards and Backwards

Add the missing numbers to complete the number patterns.

Count on in multiples of 2.

10				
----	--	--	--	--

Count on in multiples of 5.

15				
----	--	--	--	--

Count on in multiples of 10.

20				
----	--	--	--	--

Count back in multiples of 2.

24				
----	--	--	--	--

Count back in multiples of 5.

30				
----	--	--	--	--

Count back in multiples of 10.

60				
----	--	--	--	--

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Look at the last number in each row. Find the numbers in the table below and colour them in.

Rearrange the words into a sentence to solve the first clue.

18 is	60 doodler	35 the
50 short	20 tall	14 female
10 mysterious	16 moustache	15 chocolate

Answer to clue 1: _____




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Clue 2: Right or Wrong

Work out if these statements are right or wrong.

Then count the number of right answers and the number of wrong answers.

	Right	Wrong
A rectangle has two long sides the same length and two shorter sides the same length.		
<p>These coins add up to £1.16.</p> 		
140cm is the same as 1m 40cm.		
There are 15 days in two weeks.		
A cylinder has two squares at each end.		
$2 + 2 + 2 + 2$ is equal to 4×2 .		
$42 - 13 = 30$		

If there are more right answers, the moustache doodler is female.

If there are more wrong answers, the moustache doodler is male.

Circle one: male female

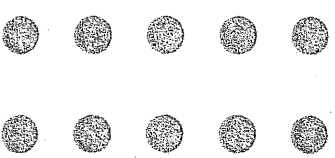
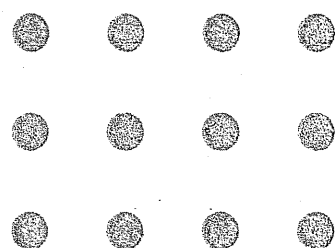
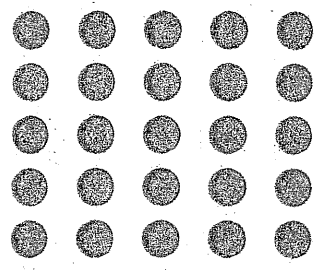
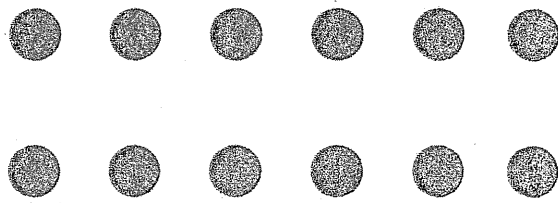
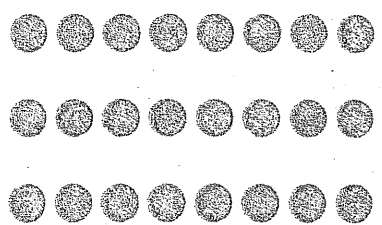
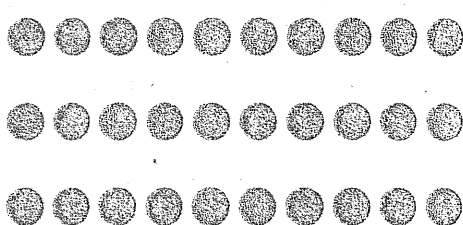
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Clue 3: Arrays of Arrays!

Here are some arrays.

Use the table below to find which calculation they show.

Rearrange the words to make a sentence to solve the third clue.

1. 	4. 
2. 	5. 
3. 	6. 

$8 \times 3 = 24$ is	$10 \times 3 = 30$ Klee	$4 \times 5 = 20$ Cézanne	$4 \times 3 = 12$ in
$10 \times 5 = 50$ Choco Glory	$8 \times 2 = 16$ Monet	$6 \times 2 = 12$ vandal	$2 \times 7 = 14$ chocolate
$5 \times 2 = 10$ the	$2 \times 3 = 6$ found	$5 \times 5 = 25$ group	$10 \times 2 = 20$ wrapper

Answer to clue 3: _____

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Clue 4: Fraction of a Whole

Match up the fraction statements with the correct answers. Rearrange the words to make a sentence to solve the fourth clue.

$\frac{1}{2}$ of 8	$\frac{1}{4}$ of 24	$\frac{1}{2}$ of 10	$\frac{1}{4}$ of 28
$\frac{1}{2}$ of 6	$\frac{1}{4}$ of 48	$\frac{1}{2}$ of 18	$\frac{1}{4}$ of 40

3 was	0 shoe	4 beside	10 found
1 Dippy Duo	5 wrapper	11 Choco Glory	7 Caramel Bite
6 the	9 a	12 paintings	2 size

Answer to clue 4: _____



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Clue 5: Missing Moustaches

Fill in the missing numbers.

Then, colour in the numbers you have written in the table below.

Rearrange the words to make a sentence to solve the final clue.

Be careful, sometimes you need to count forwards and sometimes backwards!

96	97		99		101
103		101	100		98
88	89		91		93
75	74		72	71	

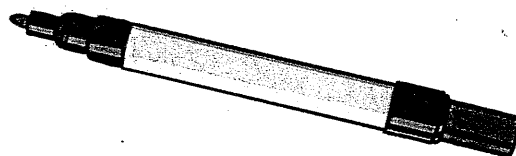
102 the	76 five	101 drawing
90 vandal	73 moustache	105 three
66 behind	100 a	99 left
98 size	70 four	92 footprint

Answer to clue 5: _____

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Have you solved the mystery of the moustache doodling vandal?

The mysterious moustache doodler is: _____



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Answers

Clue 1: Forwards and Backwards

18 is	60 doodler	35 the
50 short	20 tall	14 female
10 mysterious	16 moustache	15 chocolate

Answer to clue 1: The mysterious moustache doodler is tall.

Clue 2: Right or Wrong

	Right	Wrong
A rectangle has two long sides the same length and two shorter sides the same length.	✓	
<p>These coins add up to £1.16.</p> 		✓
140cm is the same as 1m 40cm.	✓	
There are 15 days in two weeks.		✓
A cylinder has two squares at each end.		✓
$2 + 2 + 2 + 2$ is equal to 4×2 .	✓	
$42 - 13 = 30$		✓

Answer to clue 2: There are more wrong answers so the culprit is male.

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Answers

Clue 3: Arrays of Arrays!

$8 \times 3 = 24$ is	$10 \times 3 = 30$ Klee	$4 \times 5 = 20$ Cézanne	$4 \times 3 = 12$ in
$10 \times 5 = 50$ Choco Glory	$8 \times 2 = 16$ Monet	$6 \times 2 = 12$ vandal	$2 \times 7 = 14$ chocolate
$5 \times 2 = 10$ the	$2 \times 3 = 6$ found	$5 \times 5 = 25$ group	$10 \times 2 = 20$ wrapper

Answer to clue 3: The vandal is in Klee group.

Clue 4: Fraction of a Whole

3 was	0 shoe	4 beside	10 found
1 Dippy Duo	5 wrapper	11 Choco Glory	7 Caramel Bite
6 the	9 a	12 paintings	2 size

Answer to clue 4: A Caramel Bite wrapper was found beside the paintings.

Clue 5: Missing Moustaches

102 the	76 five	101 drawing
90 vandal	73 moustache	105 three
66 behind	100 a	99 left
98 size	70 four	92 footprint

Answer to clue 5: The moustache drawing vandal left a size four footprint.

The mysterious moustache doodler is Raphael!