

What happened to the chocolate ?

There are 4 challenges to help you work out what happened to YOUR chocolate

Solve all 4 challenges,
submit your results and you could win the
choc.

Who...took it ... faces and problems

What... type of chocolate...code

Where...it was taken from....equations

Why ...it was taken...mathematical statements

Challenge 1. Faces

Calculate the answers to the problems on the following page and decide which suspect told the truth each time. You can delete that suspect from your enquiries. You will be left with 1 suspect – the guilty one.



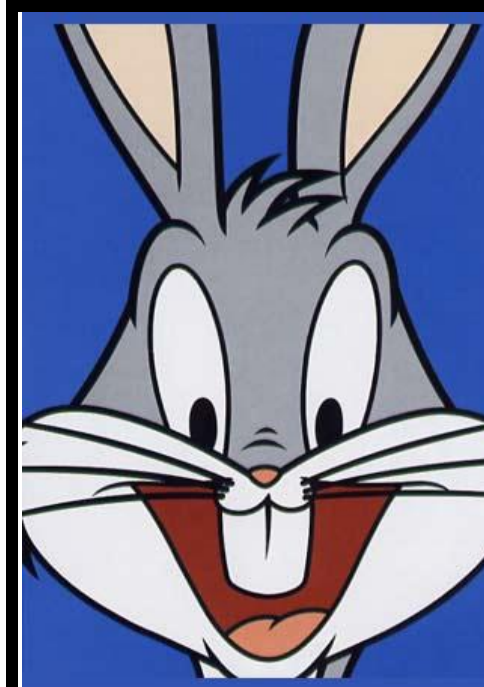
Suspect 1.
Homer Simpson



Suspect 2.
Fred Flinstone



Suspect 3.
Yogi Bear



Suspect 4. Bugs
Bunny



Suspect 5. Winnie
the Pooh



Suspect 6.
Mumble

Faces Problems

<h2>Problem 1</h2> <p>The sequence 190, 175, 160, 145, has the rule</p>			
Suspect 1 said $n - 15$		Suspect 2 said $15n + 205$	
Suspect 3 said $205 - 15n$		Suspect 4 said $190 - 15n$	
<h2>Problem 2</h2> <p>The median of a set of numbers is 25. The list of numbers could be.</p>		<h2>Problem 3</h2> <p>I'm thinking of a number. If I halve it, then add 6, then double the answer I get 35. What was my number</p>	
Suspect 2 said 23,25,24	Suspect 3 said 25,25,26,28	Suspect 2 said It was 38	Suspect 3 said It was 11.5
Suspect 5 said 21,24,26,38	Suspect 6 said 21,23,23,25,28	Suspect 4 said It was 23	Suspect 6 said It was 9.5
<h2>Problem 4</h2> <p>The perimeter of a rectangle is 32cm. The length is 3 times longer than the width. What is the area of the rectangle</p>		<h2>Problem 5</h2> <p>Jack receives £60 for his birthday. He saves a third of it, spends three quarters of what's left on some music and buys a take-away with the rest. How much did the take-away cost ?</p>	
Suspect 1 said It is 48 cm ²	Suspect 4 said It is 60 cm ²	Suspect 2 said It cost £5	Suspect 3 said It cost £20
Suspect 5 said It is 64 cm ²	Suspect 6 said It is 63 cm ²	Suspect 5 said It cost £15	Suspect 6 said It cost £ 10

Challenge 2. The chocolate

Decode the following to work out what type of chocolate was taken

a	b	c	d	e
$200 \div 10$	19×3	$45 + 65$	36×4	$350 \div 70$
f	g	h	i	j
$420 \div 7$	56×4	$360 - 280$	95×2	Half of 66
k	l	m	n	o
3×50	$600 \div 20$	$4 \times 2 \times 2$	90×4	65×4
p	q	r	s	t
24×5	$12 \times 12 \times 2$	$450 + 350$	18×3	$100 - 36$
u	v	w	x	Y or z
$90 \div 3$	15×5	$48 \div 12$	$48 \div 4$	45×4

Now write the letters into this above their number to reveal the message..

190	64	190	54	20	57	190	224	57	260
12	260	60	110	5	30	5	57	800	20
64	190	260	360	54	110	80	260	110	260
30	20	64	5	54	16	16	16	16	16

Challenge 3.

The place

The chocolate was taken from one of the following rooms at PHGS.



Ms 1	Ma 7	Hi 2
Sc 10	En 6	LC 4

Solve the following equations. The number which is NOT an answer is the room where the crime was committed

$3x + 21 = 39$
$12y - 3 = 21$
$4(2a + 3) = 20$
$4c - 2 = 3c + 5$
$6d = 24$

Challenge 4.

Decide which of these mathematical statements are true. If true, you can cross off the matching number in the reasons table.

Statement 1	361 is a square number
Statement 2	25 is the square root of 655
Statement 3	3375 is a cube number
Statement 4	42 is the square root of 1764
Statement 5	16 is the cube root of 4096

I took it to share with my maths class	1
I just love chocolate, I was going to eat it all myself	2
I wanted to give my favourite teacher a special present	3
I'm sorry, I had a mad moment – that's what chocolate does to me.	4
I wanted to give it to a charity	5

Our accusation is.....

Who took it	
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What was taken	
Where it was taken from	
Why it was taken	

Teacher answer sheet

Who took it	Fred Flinstone
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	(suspect 2)
What was taken	It it a big box of celebrations mmmm
Where it was taken from	Sc 10
Why it was taken	I jus love chocolate, I was going to eat it all myself.