

Let's Crack the Code

Part 1










You are safe at home and it is your birthday. You hear the doorbell ringing. It is a delivery man and he has a special package for you. Taking all necessary precautions you collect the package and open it up. It is a chest sent to you by your uncle who lives abroad as a birthday present. But this chest is locked! It is locked with a padlock. On top of the chest you find an envelope with a note in it from your uncle. He informs you that in order to open the padlock you need to solve the 5 Maths challenges found in the envelope.

Are you ready for this challenge?

Today you will solve 3 challenges, thus finding out the first 3 digits to open the padlock. More challenges will follow tomorrow.

Enjoy 😊

Challenge 1

								
5	7	2	8	9	1	4	6	3

Change each picture to its corresponding number.

Are these calculations Correct (✓) or Incorrect (X)?

$$\frac{\text{cake}}{\text{candles}} \text{ of } \text{bunting} = \text{party masks}$$

$$\text{candles} \times \text{balloons} \times \text{cupcake} = \text{cake} \times \text{cupcake} \times \text{balloons}$$

$$\frac{\text{cake}}{\text{candles}} > \frac{\text{cake}}{\text{cupcake}}$$

$$\frac{\text{gifts} \times \text{party hats}}{\text{party hats}} = \text{cake} \times \text{confetti}$$

Count the number of correct calculations.

This is your first digit to open the padlock.



Challenge 2



Use the code breaker to reveal a mystery number in words.

A	B	C	D	E	F	G	H	I	J	K	L	M
3	78	5	8	180	55	15	28	7	10	29	18	4

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
24	19	1	11	200	14	900	9	6	12	6	21	1700

	Answer	Letter
1.5 centimetres in millimetres	mm	
0.9 kilometres in metres	m	
minutes in 3 hours	minutes	
20c coins in €1.40	coins	
0.028 kilograms in grams	g	

Rearrange the letters to form this number.

This number is your second number to open the padlock.



Challenge 3

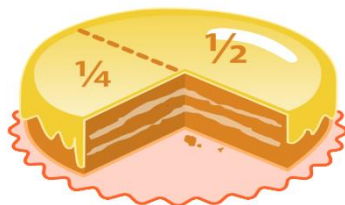
What fraction of the food is left?

Match the fraction with its representation.



$$\frac{5}{8}$$

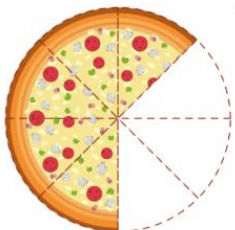
$$\frac{1}{6}$$



$$\frac{3}{7}$$

$$\frac{1}{2}$$

$$\frac{2}{3}$$



$$\frac{3}{4}$$

$$\frac{2}{5}$$



Find the fraction with no representation.

The denominator in the fraction with no representation is your third digit to open the padlock.