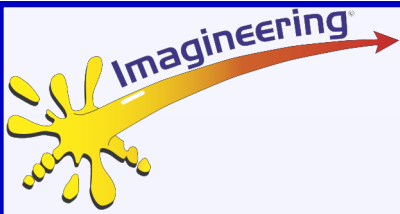


# HAVE FUN WITH MATHS!!

**With these simple  
Tricks, Sequences  
& Patterns**



Answers on p10 and p12



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## Maths Trick 1: 2's trick

**Step 1:**  
Think of a number

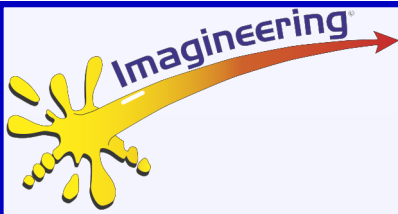
**Step 2:**  
Multiply it by 3

**Step 3:**  
Add 6 to the total

**Step 4:**  
Divide it by 3

**Step 5:**  
Subtract the first number used.





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## Maths Trick 2: Any Number

**Step 1:**

Think of any number

**Step 2:**

Double the number

**Step 3:**

Add 9 to the result

**Step 4:**

Subtract 3 from the result

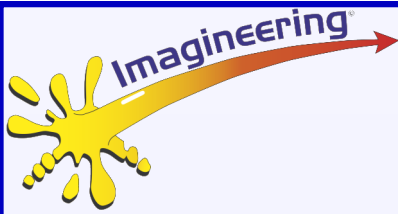
**Step 5:**

Divide the result by 2

**Step 6:**

Subtract the first number thought of





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## Maths Trick 3: Any 3-digit Number

**Step 1:**

Think of any 3-digit number

**Step 2:**

Add 7 to it

**Step 3:**

Multiply the number by 2

**Step 4:**

Subtract 4 from the result

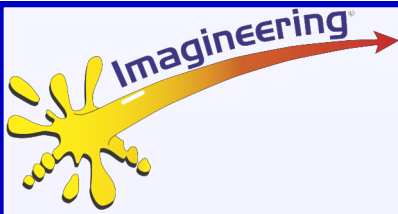
**Step 5:**

Divide the result by 2

**Step 6:**

Subtract the number first thought of





# HAVE FUN WITH MATHS!!

## Maths Trick 4: Number below 10

### Step 1:

Think of a number below 10

### Step 2:

Double the number you have thought of

### Step 3:

Add 6 to the result

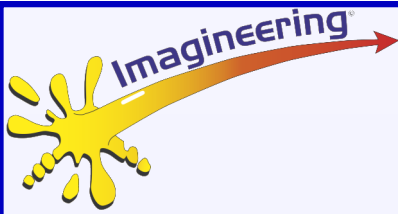
### Step 4:

Divide it by 2

### Step 5:

Subtract the number first thought of





# HAVE FUN WITH MATHS!!

## Maths Trick 5: Any number

**Step 1:**

**Think of a number**

**Step 2:**

**Subtract 1 from that number**

**Step 3:**

**Multiply the result by 3**

**Step 4:**

**Add 12 to the result**

**Step 5:**

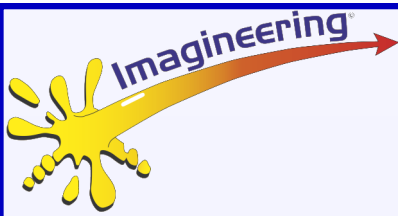
**Divide the answer by 3**

**Step 6:**

**Add 5 to the result**

**Step 7:**

**Subtract the number first thought of**



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## Maths Trick 6: Any number

**Step 1:**

Think of any number

**Step 2:**

Multiply that number by 3

**Step 3:**

Add 45 to the result

**Step 4:**

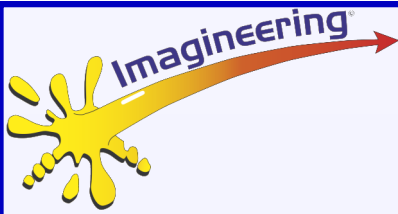
Double that number

**Step 5:**

Divide the answer by 6

**Step 6:**

Subtract the number you first thought of



# HAVE FUN WITH MATHS!!

## Maths Trick 7: Same 3-digit number

### Step 1:

Think of any 3-digit number, but each digit must be the same: eg: 333; 777; 222

### Step 2:

Add up the digits

### Step 3:

Divide the original 3-digit number with the digits added up







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## Maths Trick 8: 2 Single Digit Numbers

### Step 1:

Think of 2 separate single digit numbers

### Step 2:

Take any one of the numbers and double it

### Step 3:

Add 5 to the result

### Step 4:

Multiply the result by 5

### Step 5:

Add the second number first thought of to this total

### Step 6:

Subtract 4 from the result

### Step 7

Subtract 21 from the result



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## Maths Tricks **ANSWERS**

- |          |                          |
|----------|--------------------------|
| Trick 1: | <b>2</b>                 |
| Trick 2: | <b>3</b>                 |
| Trick 3: | <b>5</b>                 |
| Trick 4: | <b>3</b>                 |
| Trick 5: | <b>8</b>                 |
| Trick 6: | <b>15</b>                |
| Trick 7: | <b>37</b>                |
| Trick 8: | <b>2 original digits</b> |



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## Sequences & Patterns



What is the next number in these sequences:

Q1.            31            39            47            55            .....

Q2.            4            12            36            108            .....

Q3.            7            9            13            19            .....

Q4.            You have gone out to buy tickets for a pop concert. Using the scale below work out how much it would cost to buy **14 tickets**

£48	£55	£62	£69	.....
6	7	8	9	14

Q5.            What is the **previous** number in this sequence?

.....            11            14            17            20

Q6.            All living organisms begin life as a single cell. That cell replicates until the organism is fully grown. Suppose each cell replicates at the same regular intervals. How many cells should there be after **6** replications? (Note: not after 5)

<b>No of cells</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>16</b>	.....
<b>No of replications</b>	1	2	3	4	6

Q7.            What is the **6th** number in this sequence? (Not the 5th)

**Year:** 2150            2200            2300            2500            .....

Q8.            Radioactive material's half life is the time it takes for half its atoms to decay. Depending on the material, half lives can range from seconds to millions of years. This particular radioactive material was created in 1961 and its half life has been recorded since. When will half of its atoms have decayed next?

**Year:**            1961            1975            1989            2003            .....

Q9.            What is the **third** number in this sequence?

6            24            .....            384            1536

Q10.            Using the scale below, how many scoops of dried milk powder will it take to make up **7** litres of milk?

<b>Powder Scoops</b>	3	6	9	12	.....
<b>Litres of Milk</b>	1	2	3	4	7

*Answers overleaf*

*More at: [www.e-learningforkids.org](http://www.e-learningforkids.org)*



# HAVE FUN WITH MATHS!!

## Sequences & Patterns

### ANSWERS

Q1.            31            39            47            55            ...63....

Q2.            4            12            36            108            ...324....

Q3.            7            9            13            19            ...27....

Q4.            *You have gone out to buy tickets for a pop concert. Using the scale below work out how much it would cost to buy 14 tickets*

£48	£55	£62	£69	...£104....
6	7	8	9	14

Q5.            *What is the previous number in this sequence?*

...8....            11            14            17            20

Q6.            *All living organisms begin life as a single cell. That cell replicates until the organism is fully grown. Suppose each cell replicates at the same regular intervals. How many cells should there be after 6 replications? (Note: not after 5)*

No of cells	2	4	8	16	...64...
No of replications	1	2	3	4	6

Q7.            *What is the 6th number in this sequence? (Not the 5th)*

**Year:**    2150            2200            2300            2500            ...3700...

Q8.            *Radioactive material's half life is the time it takes for half its atoms to decay. Depending on the material, half lives can range from seconds to millions of years. This particular radioactive material was created in 1961 and its half life has been recorded since. When will half of its atoms have decayed next?*

**Year:**    1961            1975            1989            2003            ...2017....

Q9.            *What is the third number in this sequence?*

6            24            ...96....            384            1536

Q10.            *Using the scale below, how many scoops of dried milk powder will it take to make up 7 litres of milk?*

Powder Scoops	3	6	9	12	...21....
Litres of Milk	1	2	3	4	7