

# Helping Out with Maths in the Evening

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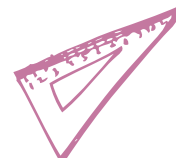
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Key Stage 2



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# Multiplication Cards

## Useful Websites:

**[www.mathsisfun.com](http://www.mathsisfun.com)**

- **Homepage > Numbers**
- **Multiplication > Maths Trainer**

**Really good way to train your child when they have a good understanding of multiplying.**

**[www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk)**

- **Whiteboard Resources > KSI**
- **Multiplication and Division**

- 1. Ghostbusters**
- 2. Multiplication Explorer**
- 3. Gordons Multiplication**

**[www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk)**

- **Whiteboard Resources > KS2**
- **Multiplication and Division**

- 1. Spinners**
- 2. Function Wheel**

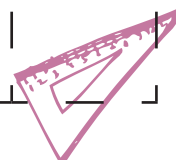
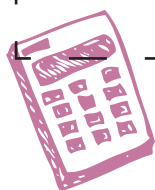
**[www.google.com](http://www.google.com)**

- **Search 'Woodlands Mathszone'**
- **Timestables > Timestables Games**

**For all of the above websites these are only some examples, you can feel free to try other games as well!**



## to help with multiplication

[illegible]

# Table Patterns (2, 4, 8)

- a)** Get your child to use the Blank Grid on page 7 in the spaces on the top strip (using a pencil) write out the counting in 2s E.g. or copy page/laminate and cut out strips of 10

2	4	6	8	10	12	14	16	18	20
---	---	---	---	----	----	----	----	----	----

- b)** In the space on the strip directly below (using a pencil) write out the counting in 4s

4	8	12	16	20	24	28	32	36	40
---	---	----	----	----	----	----	----	----	----

**Problem Solve:** What do you notice?

- c)** Cover a number(s) and ask what number is missing? How did you know?

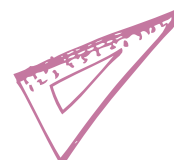
- d)** In the spaces on the strip directly below (using a pencil) write out counting in 8s

8	16	24	32	40	48	56	64	72	80
---	----	----	----	----	----	----	----	----	----

- e)** Repeat 'c'

- f)** Rub out pencil marks and repeat 4a-c with counting in 5s and 10s

- g)** Rub out pencil marks and repeat 4a-c with counting in 3s and 6s

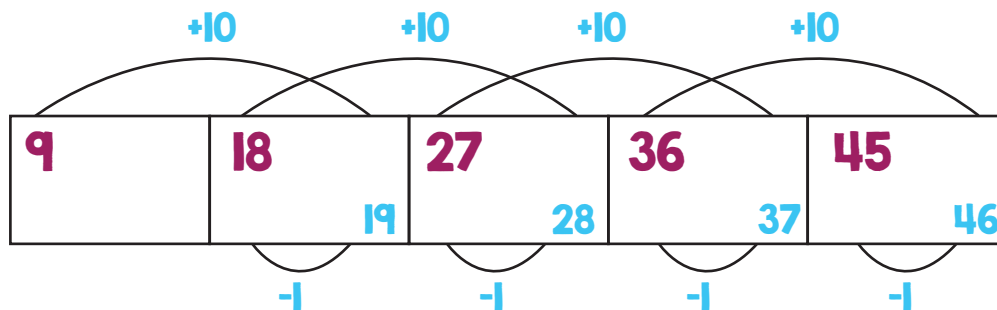


# 9 Times

a) You can help with tables beyond 5 too e.g. 9 times tables.

**Tip:** Always remember that  $9 = 10 - 1$

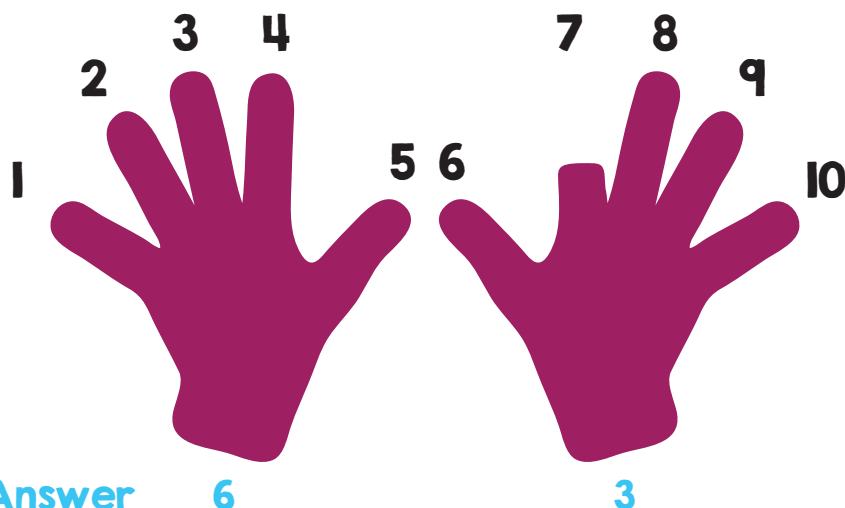
b) Encourage them to count on 10-1 as they are doing the count. E.g.



c) Get your child to draw these on an ENL.



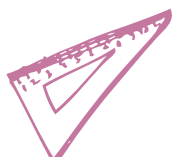
d) You can help your child with little 'tips' on 9 times tables too when they have a good understanding. E.g. Number your fingers (and thumbs) 1 - 10 from left to right. Choose any number 1 - 10, for example, 7. Put down your 7th finger. Ask your child how many fingers they have raised to the left? (Answer = 6 Number of tens). How many fingers they have raised to the right? (Answer = 3 Number of units).



Answer

6

3



# No Friends '7 Times'

a) The 7 Times seem to have no 'friends' at all. Yet if we know all the rest of them, things should be easier

b) Get your child to make or take out a 10 strip. Ask them to put on the multiples of 7 (7 Times Tables) that they definitely know. E.g.

7	14			35					70
---	----	--	--	----	--	--	--	--	----

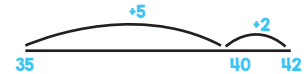
c) Now help them to fill in the missing ones by asking questions like;

a. What is  $14 + 7$  ( $14 + 6 + 1$ ) =  $20 + 1 = 21$



b. What is  $21 + 7$  ( $1 + 7 = 8$ ) so  $21 + 7 = 28$

c. What is  $35 + 7$  ( $35 + 5 + 2$ ) =  $40 + 2 = 42$



d. What is  $42 + 7$  ( $2 + 2 = 4$ ) so  $42 + 7 = 49$

e. What is  $49 + 7$  ( $49 + 1 + 6$ ) =  $50 + 6 = 56$



f. What is  $56 + 7$  ( $56 + 4 + 3$ ) =  $60 + 3 = 63$



g. What is  $63 + 7$  ( $3 + 7 = 10$ ) so  $60 + 10 = 70$

d) Sometimes with tables more than 5 times it is easier if we split up the multiply sum.

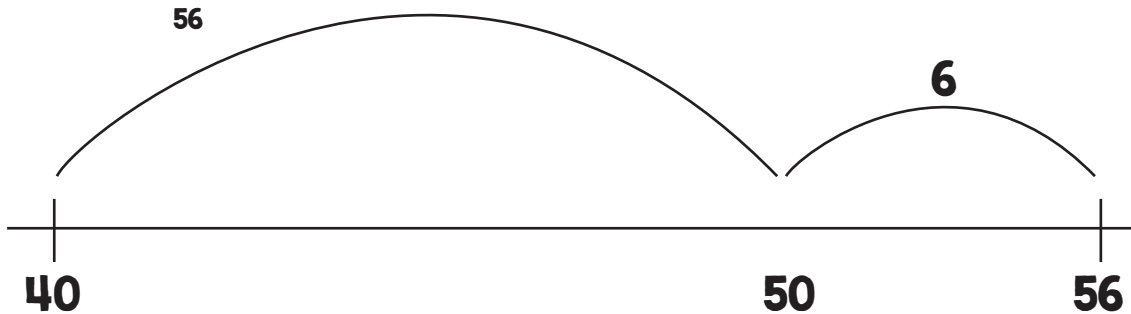
E.g. What is  $7 \times 8$ ?

But I do know  $\begin{cases} (5) \times 8 = 40 \\ + \\ (2) \times 8 = +16 \\ \hline 56 \end{cases}$

I don't know

10

6



# Long Multiplication.

## What about it?

There eventually comes a point (when the tables are known!) that we need to multiply bigger numbers e.g. a garden measures 37m x 48m. What area does it cover?

**Tip No. 1:** Work out rough answer

37 (nearly 40) x 48 (nearly 50)

$40 \times 50 = 2000$  This is my rough answer.

$$\begin{array}{r} 37 \\ \times 48 \\ \hline 296 \\ + 148 \\ \hline 444 \end{array}$$

We can learn from wrong answers!

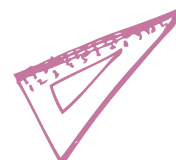
This is why we have the ROUGH ANSWER

**Correct Method**

$$\begin{array}{r} 37 \\ \times 48 \\ \hline 296 \\ + 1480 \\ \hline 1776 \end{array}$$

We need to understand why the "0" appears. In this case to show we are multiplying by 4 tens or 40 and multiplying by 10 moves everything 1 place to the left






We still do this



# Numbers

## Prime numbers

- Prime numbers are special numbers that can only be divided by themselves and 1
- 19 is a prime number. It can only be divided by 1 and 19.
- The number 1 is not thought of as a prime number.
- 9 is not a prime number. It can be divided by 3 as well as 1 and 9.
- The prime numbers below 20 are: 2, 3, 5, 7, 11, 13, 17, 19

1	2	3	4	5
				
1 Dot	3 Dots	6 Dots	10 Dots	15 Dots

## Triangular Numbers

- A number that can make a triangular dot pattern.
- Example: 1, 3, 6 and 10 are triangular numbers

# Percentages %

Percent means 'out of 100'

- The sign % stands for 'per cent' which means 'out of 100'.

Example:

- 40% means 40 out of 100
- 11% means 11 out of 100

## Converting between percentages and decimals

To change a percentage to a decimal, divide by 100

Example:

- Change 48% to a decimal:  $48 \div 100 = 0.48$

To change a decimal to a percentage, multiply by 100

Example:

- Change 0.67 to a percentage:  $0.67 \times 100 = 67\%$

## Converting between percentages and fractions

Write the percentage as a fraction over 100 and then simplify

Example:

- 60% means 60
- $\frac{60}{100} = \frac{6}{10} = \frac{3}{5}$
- Learn these equivalent fractions and percentages
- $\frac{1}{2} = 50\%$
- $\frac{1}{4} = 25\%$
- $\frac{1}{10} = 10\%$
- $\frac{3}{4} = 75\%$
- $\frac{1}{5} = 20\%$
- $\frac{1}{3} = 33 \frac{1}{3}\%$

} Most important ones!

Percentage of a number

Example:

- To find 20% of 30 is to first find 10% of 30 and then multiply by 2.
- 10% of 30 is  $30 \div 10 = 3$
- $2 \times 3 = 6$
- Or recognise that 20% is equivalent to one fifth, and so just divide 30 by 5.
- $30 \div 5 = 6$

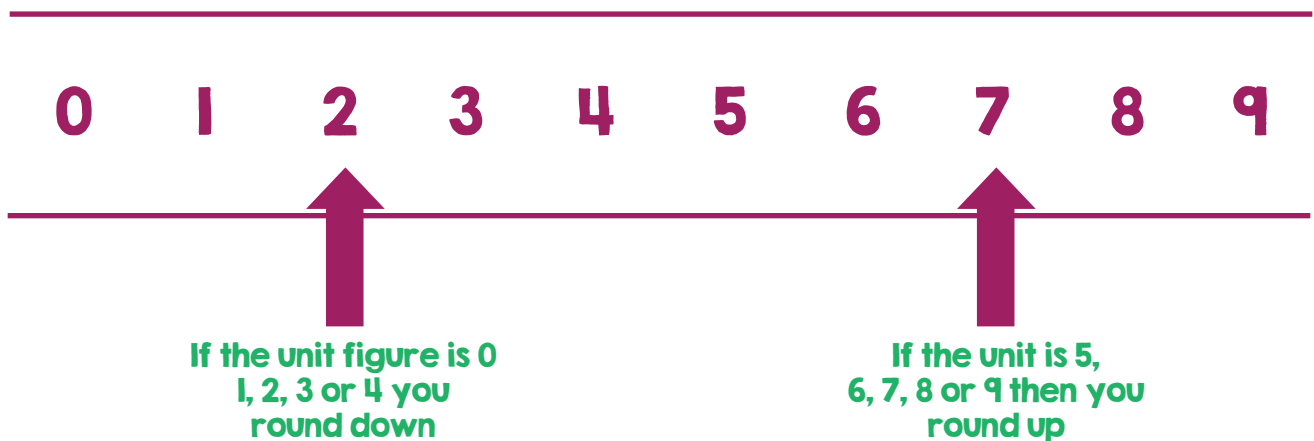


# Rounding Tens, Hundreds, Thousands

Rounding a number is another way of writing a number approximately. We often don't need to write all the figures in a number, as an approximate one will do.

## Rounding to the nearest ten

To round a number to the nearest 10, you have to decide if the number is nearest to 10, 20, 30 etc. To do this you follow a rule.



**Question:** Is 37 nearer to 30 or to 40?

- As the unit figure is 7, you round up to 40.
- Rounding to the nearest 10 can help you estimate the cost of your shopping.

## Rounding to the nearest hundred

To round a number to the nearest 100, you have to decide if the number is nearest to 100, 200, 300 etc. The rule is the same as for rounding to the nearest 10, but this time look at the tens figure.



# Data Handling

1. Go to [www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk) - whiteboard resources - KS2. Data Handling

Get your child to play/practise some of the following good challenging activities (and you as well!)

- a) Bar Charts
- b) Carroll Diagrams
- c) Data Handling

2. Sit down with your child and design a simple bar chart e.g. favourite teams, xbox games etc.

# Shape and Space

1. Go to [www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk) - whiteboard resources - KS2. Shape/Space/Measures

- a. Get your child to play some of the following games (you sit down and play too!)

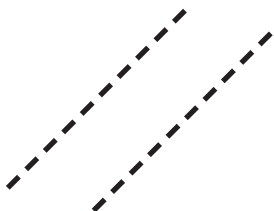
- i. Symmetry
- ii. Reflections
- iii. Symmetry Game
- iv. Belly Bug (Co-Ordination)
- v. Co-Ordinate Cards

2. Google - oswegomaths - Go to resources oswego.org/games

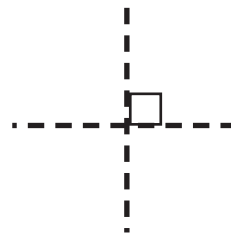
- a. Go to Banana Hunt

3. Look for things in your house with lines of symmetry e.g. windows, doors, tables etc.

## Lines



**Parallel lines** are always the same distance apart.

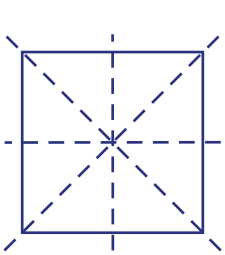


**Perpendicular lines** cross at right angles

A 2D shape is symmetrical if a line can be drawn through it so that either side of the line looks exactly the same. The line is called a line of symmetry.



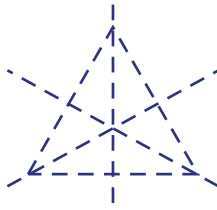
# Lines of Symmetry



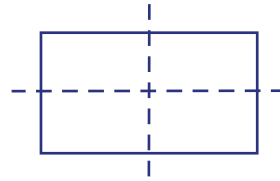
**Square**  
4 lines of symmetry



**Isosceles Triangle**  
1 line of symmetry



**Equilateral Triangle**  
3 lines of symmetry



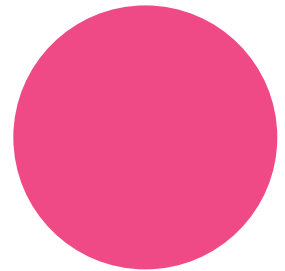
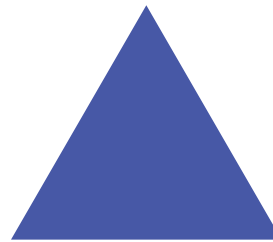
**Rectangle**  
2 lines of symmetry



**Parallelogram**  
0 lines of symmetry

# Shapes

## 2D Shapes



- **Squares** have 4 straight sides and 4 corners.
- All the sides are the same length

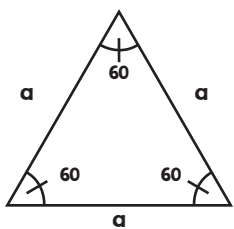
- **Rectangles** have 4 sides and 4 corners.
- They have 2 long sides and 2 short sides.

- **Triangles** have 3 sides and 3 corners.

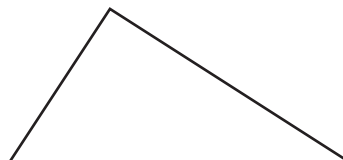
- **Circles** only have one side and no corners.

# Triangles

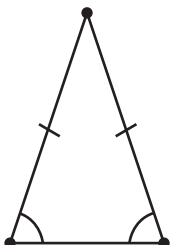
Triangles have three sides. There are many different types of triangles:



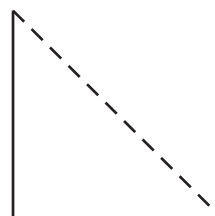
- 3 equal sides
- 3 equal angles of 60°



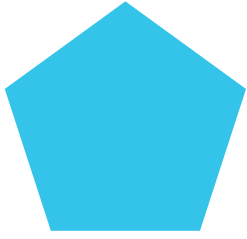
- No equal sides
- No equal angles



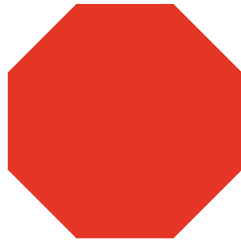
- 2 equal sides
- 2 equal angles



- One of its angles is a right angle (90°)



- This is a **pentagon**.
- It has 5 straight sides and 5 corners.
- All the sides are the same length.



- This is an **octagon**.
- It has 8 sides and 8 corners.
- All the sides are the same length.

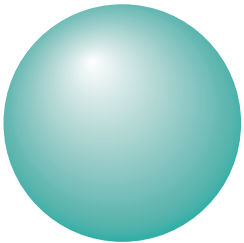


- A **semi-circle** has one straight side and one curved side.
- 2 semi-circles make a circle.



- This is a **hexagon**.
- It has 6 sides and 6 corners.
- All the sides are the same length.

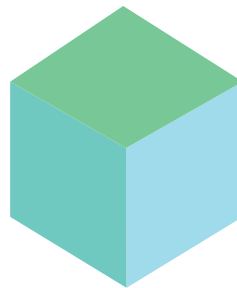
## 3D Shapes



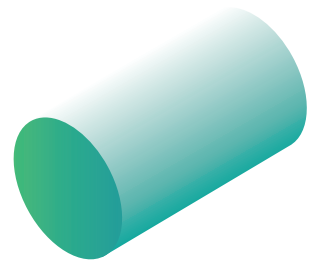
- This 3D shape has not flat faces and no straight edges. It has just one curved face.
- This is a **sphere**.



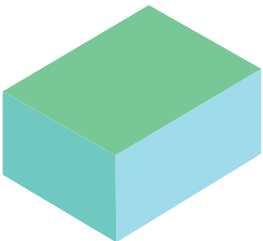
- This 3D shape has one curved face and one flat face. The flat face is a circle.
- This is a **cone**.



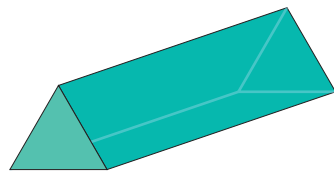
- This 3D shape has 6 flat square faces, 12 straight edges and 8 corners.
- This is a **cube**.



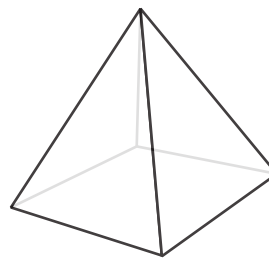
- This 3D shape has one curved face and 2 flat circular faces.
- This is a **cylinder**.



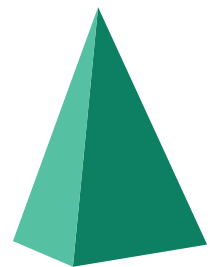
- This 3D shape has 6 flat faces; 2 are squares and 4 are rectangles. It has 12 straight edges and 8 corners.
- This is a **cuboid**.



- This 3D shape has 5 flat faces; 2 are triangles and 3 are rectangles. It has 9 straight edges and 6 corners.
- This is a **triangular prism**.



- This 3D shape has 5 flat faces; 4 are triangles and 1 is a square. It has 8 straight edges and 5 corners.
- This is a **square based pyramid**.



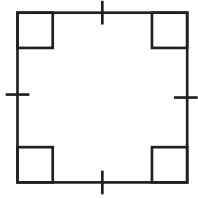
- This 3D shape has 4 flat triangular faces. It has 6 straight edges and 4 corners.
- This is a **triangular based pyramid**.



# Quadrilaterals

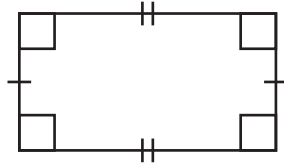
Quadrilaterals have four sides. Here are some special quadrilaterals:

**Square**



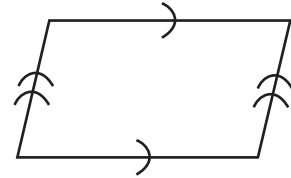
- 4 equal sides
- 4 right angles

**Rectangle**



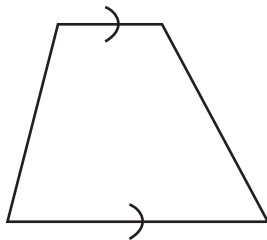
- 2 pairs of equal sides
- 4 right angles

**Parrellelogram (squashed rectangle)**



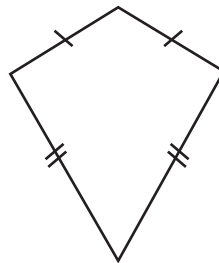
- 2 pairs of equal sides
- Opposite sides are parallel
- Opposite angles are equal

**Trapezium**



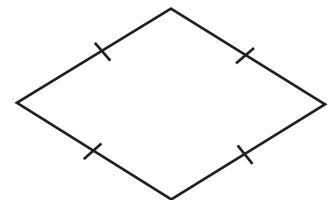
- One pair of parallel sides of different lengths

**Kite**



- 2 pairs of equal sides next to each other
- No parallel sides

**Rhombus (squashed square)**



- 4 equal sides
- Opposite sides are parallel
- Opposite angles are equal

## Multiplication Definitions

Here are some of the words which we use when doing multiplication sums. Have a look below to see how they can be used in the simple sum  $2 \times 2 = 4$ .

<b>Multiply</b>	If you multiply 2 by 2 you get 4
<b>Multiple</b>	4 is a multiple of 2
<b>Times</b>	2 times 2 is 4
<b>Sets of</b>	2 sets of 2 make 4
<b>Lots of</b>	2 lots of 2 make 4
<b>Groups of</b>	2 groups of 2 make 4
<b>Factors</b>	2 is factor of 4. One number is a factor of another number if it divides or goes into it exactly
<b>Products</b>	The product of 2 and 2 is 4



# Measures

Remember;

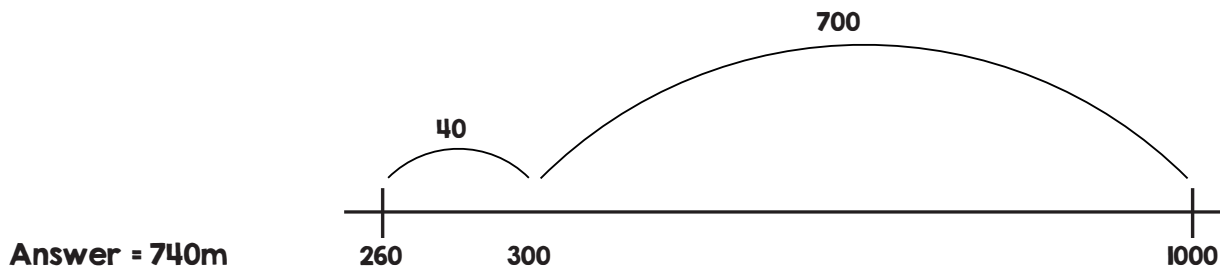
10mm = 1cm	500g = 1/2Kg
100cm = 1m	250g = 1/4Kg
1000m = 1km	1000ml = 1L
500m = 1/2km	500ml = 1/2L
250m = 1/4km	250ml = 1/4L
1000g = 1Kg	

a) Give your child practice in counting on when using m, g, ml to nearest km, kg, l (Follow these examples).

**Example 1:**

If I walk 260m, how much more do I need to walk to reach 1km (1000m)?

**Tip:** Use the Empty Number Line



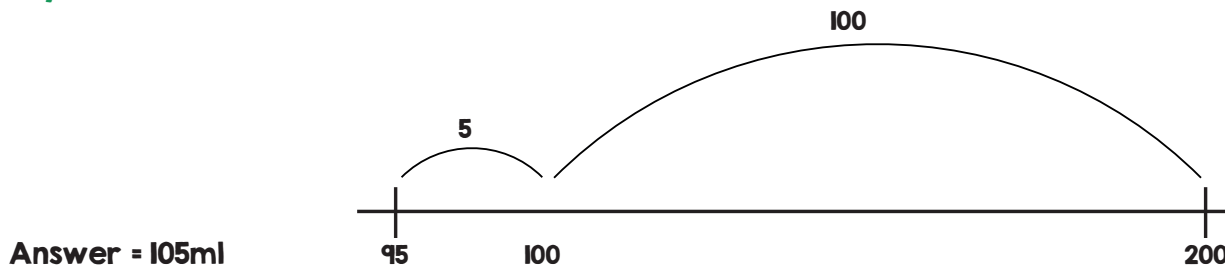
a) Mark 260m and 1000m

b) Mark in next hundred to 260 i.e. 300 and show 'hop' forward (40m)

c) Show the hop from 300-1000 i.e. 700.

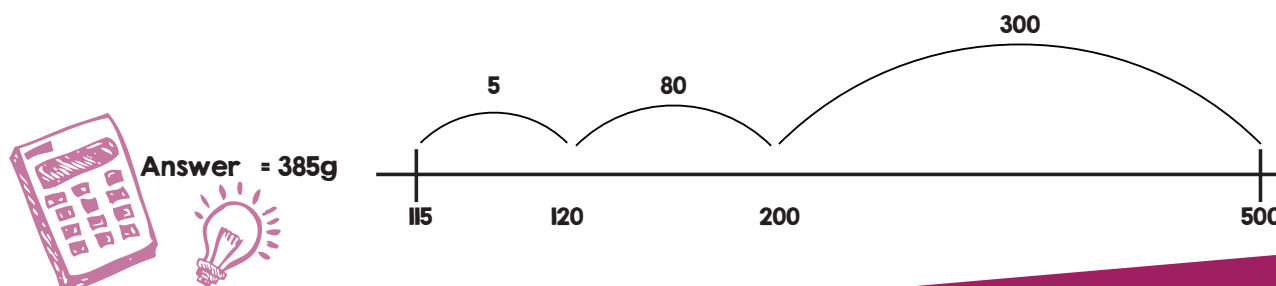
**Example 2:**

My water bottle holds 200ml and I have drunk 95ml. How much have I left?



**Example 3:**

A bag of sugar holds 500g. I use 115g for baking a cake. How much have I got left?



### Tip:

- a) Mark in 115g and 500g
- b) Count on 5 from 115 to next 10 (120)
- c) Count on 80 to next 100 (200)
- d) Count on 300 to make 500.

**i** Good activities on [topmarksmaths.co.uk](http://topmarksmaths.co.uk) - whiteboard resources - KS2

- a) Understanding Measures
- b) Temperature
- c) Dartboard Rounding

a) Give your child time to explore various measures.

**E.g. 1. Cooking:** What ingredients are needed?

How much of each ingredient?

(This can be formal like 10g of sugar, 2g of salt and 100g of flour etc. OR informal like a tablespoon of sugar, 3 handfuls of flour etc.)

**E.g. 2. Length of garden shed:** How many child's strides?

How many child's footsteps?

Do you need to measure it all? (Maybe halfway may do!)

**E.g. 3. Filling the 2 litre milk carton with 100ml glass.** How many do you think it will be?  
Were you correct?

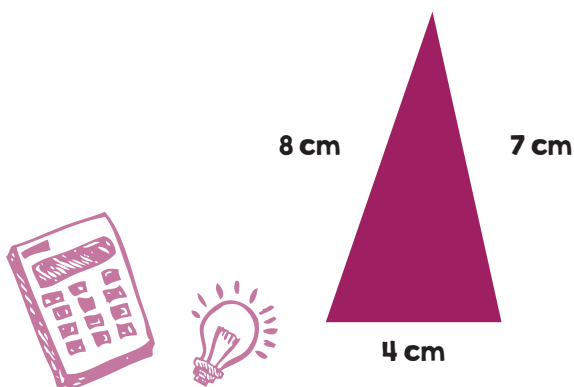
# Measuring

## Perimeter

### What is Perimeter?

- The perimeter is the distance all the way around the outside of a 2D shape.
- To work out the perimeter, add up the lengths of all the sides.

### Example:



The perimeter of this shape is:

$$8 + 4 + 7 = 19\text{cm}$$



In a rectangle opposite sides are equal, so to work out the perimeter of a rectangle you just need to know the length and width.

### Example:



Here the length is 8 cm and the width 5cm.

### Method 1

Length = 8cm and width = 5cm  
Perimeter =  $8 + 5 + 8 + 5 = 26\text{cm}$

### Method 2

Because opposite sides are equal you can also work out the perimeter in this way:  
Double the length, double the width, then add the results together.

$$(8 \times 2) + (5 \times 2) = 16 + 10 = 26$$

## Volume

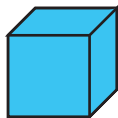


Each of these two cuboids has the same volume,  $10\text{ cm}^3$ , and the same dimensions: length 5cm, width 2cm, height 1cm.

The volume of the first can be found by counting the unit cubes.

The volume of the second is found using the rule:

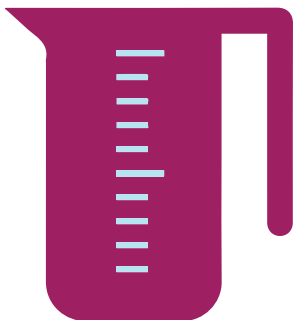
**Volume of a cube or cuboid = length x breadth x height**



This cube has sides of length 3cm

Its volume is  $3 \times 3 \times 3 = 27\text{cm}^3$

## Measuring Capacity



Capacity or volume is a measure of how much space something takes up. Measuring spoons or measuring jugs can be used to measure capacity.

To find the Volume or Capacity of a cube or cuboid container:

$$\text{Volume} = \text{Length} \times \text{Breadth} \times \text{Height}$$

#### Metric Units of Capacity

Capacity is measured in millilitres (ml) and litres (l).

- 1l - 1000ml
- $3/4\text{l}$  - 750 ml
- $1/2\text{l}$  - 500 ml
- $1/4\text{l}$  - 250 ml

#### Use these tips to estimate capacity:

- 5 ml is about the capacity of a teaspoon.
- 1l is about the capacity of a large carton of fruit juice

#### Imperial units of capacity:

- Pints and gallons are old units of capacity (imperial units)
- There are 8 pints in a gallon
- A pint is equal to just over half a litre
- A gallon is roughly equal to 4.5 litres

Units of measurement:

$\text{cm}^3$   
 $\text{m}^3$



# Time

## Things I Need for Time

### Materials:

- Clock (at home)

### Useful Websites:

[www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk)

- Whiteboard Resources
- KS2
- Measures

[www.topmarksmaths.co.uk](http://www.topmarksmaths.co.uk) - Whiteboard Resources KS2 - Measures

### a) Class Clock or clock

Give your child plenty of practice setting the 'Class Clock' to different times and get them to do the same with another.

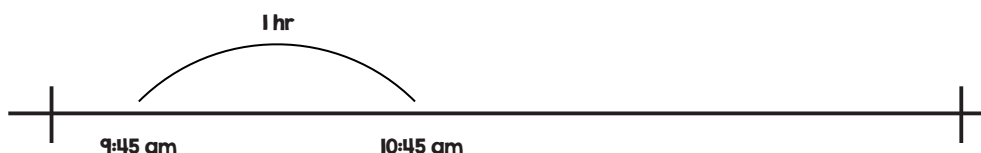
**Teaching Tip:** Start with o'clocks, then half past, quarter past, quarter to etc.

Make sure your child follows what they see on the 'Class Clock' activities.

b) Get your child to add/take away some times now e.g. 1hr, 1/2hr (30 mins), 1/4 hr (15mins) etc. Get them to do these with their own clock.

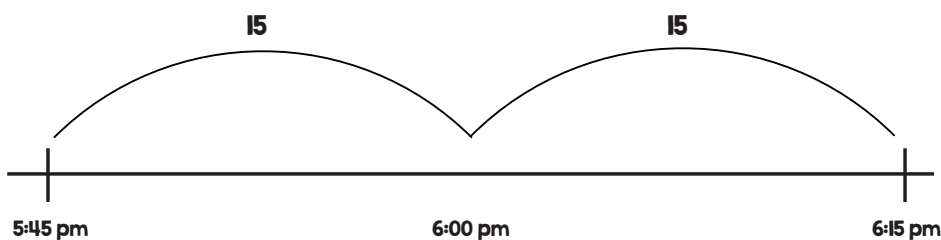
Show some of these on an Empty Number Line (ENL)

a. E.g. - 9:45am + 1hr



Answer = 10:45am

b. E.g. - 5:45pm + 1/2 hour (30 mins)

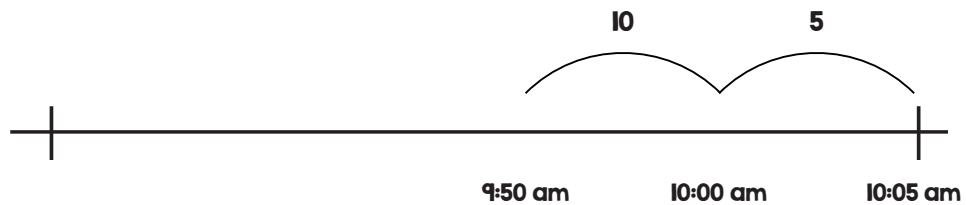


Answer = 6:15pm



# Time

a. E.g. - 10:05am - 1/4hr (15mins)



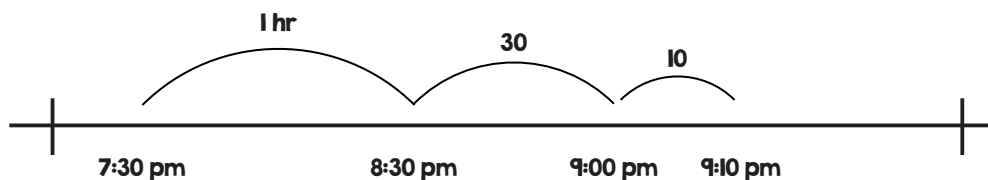
Answer = 9:50am

a) Other good activities from 'Measures related to Time' (topmarksmaths website) include;

- a. Clock
- b. On Time - Advanced Level
- c. Telling the Time

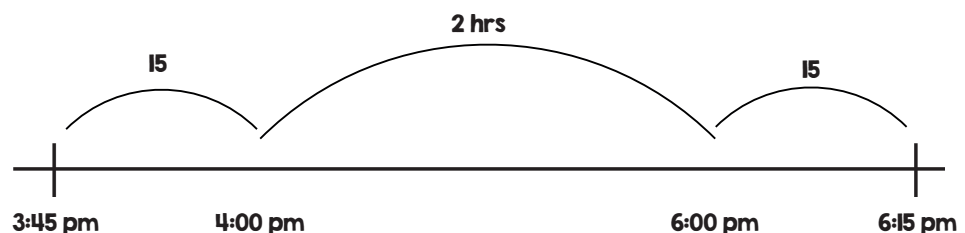
b) Give your child more practice in adding/taking away times of everyday events using Empty Number Lines (ENLs)

a. Example 1: The film starts at 7.30pm and goes on for 1hr 40mins. What time is it over at?



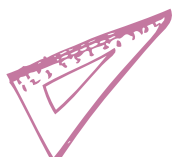
Answer: 9:10pm

f. Example 2: If I get home from school at 3.45pm and get my tea at 6.15pm, how long do I have to wait?



Answer: 2hrs 30mins

**Tip:** Count on minutes to next 'O'Clock' (15mins) and then how many hours to next 'O'Clock' (2hr) and then count on minutes from 'O'Clock' (15mins).



# Time

## Analogue Clock

There are 60 minutes in an hour.

There are 5 minutes between each number and the next.



There are 15 minutes in a quarter of an hour.

There are 30 minutes in half an hour.

- The large hand on a clock is always the minute hand.
- The small hand on a clock is always the hour hand.
- Before noon is known as AM and afternoon is known as PM.

## 24 Hour Clock

12 Hour Clock	24 Hour Clock		12 Hour Clock	24 Hour Clock
12 pm	1200		12 am	0000
1 pm	1300		1 am	0100
2 pm	1400		2 am	0200
3 pm	1500		3 am	0300
4 pm	1600		4 am	0400
5 pm	1700		5 am	0500
6 pm	1800		6 am	0600
7 pm	1900		7 am	0700
8 pm	2000		8 am	0800
9 pm	2100		9 am	0900
10 pm	2200		10 am	1000
11 pm	2300		11 am	1100

## Units of Time

1 minute	60 seconds
1 hour	60 minutes
1 day	24 hours
1 week	7 days
1 fortnight	14 days
1 year	12 months / 52 weeks / 365 days
1 leap year	366 days

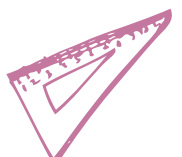
## How Many Days?

### Remember:

30 days has September, April, June and November.

All the rest have 31.

Except for February all alone, which has 28 days clear but 29 in each leap year.



# Which Strategy is Best?

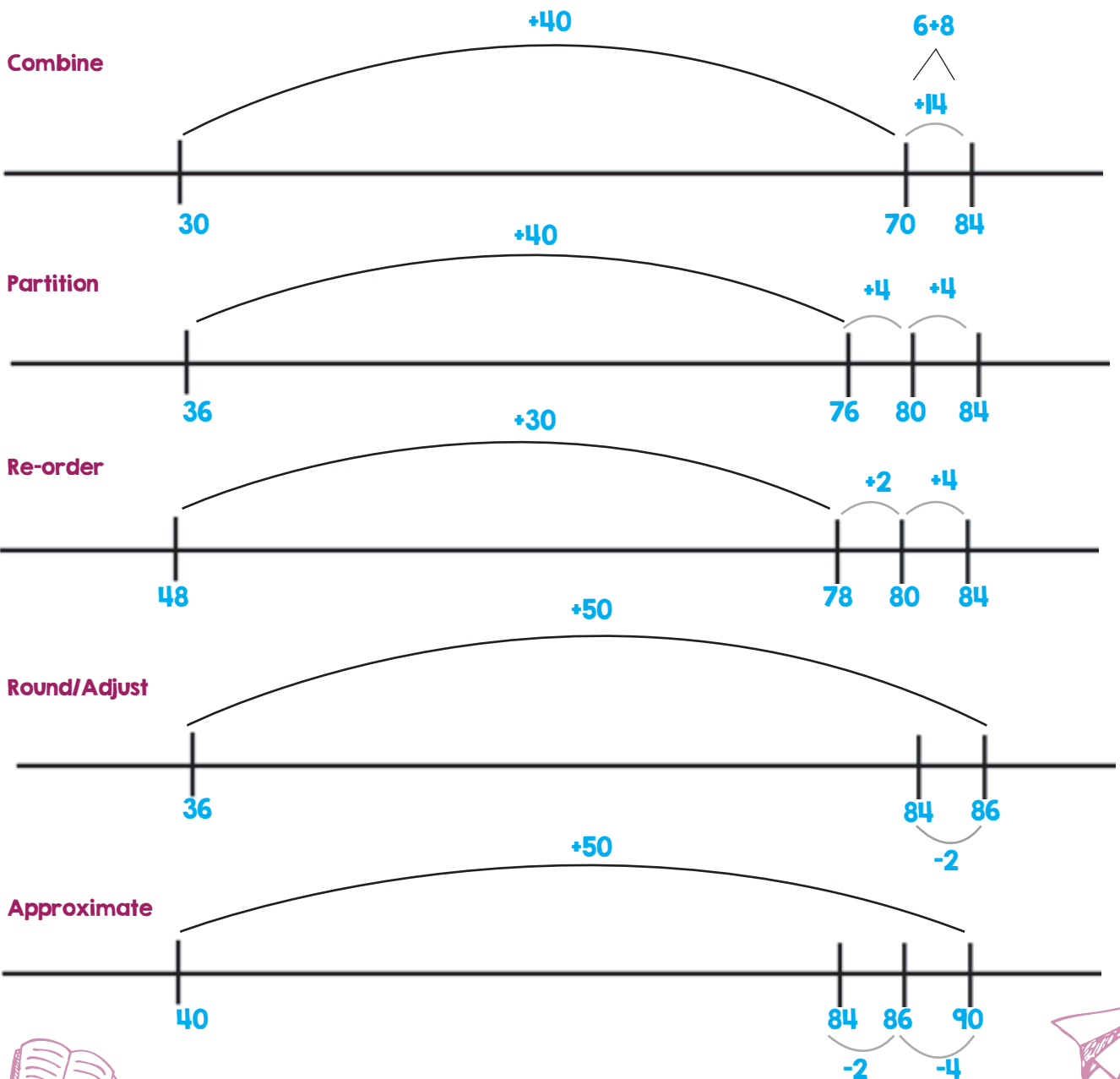
When pupils have worked through a variety of mental strategies e.g;

- Counting on/back
- Rounding/adjusting
- Combining
- Partitioning etc.

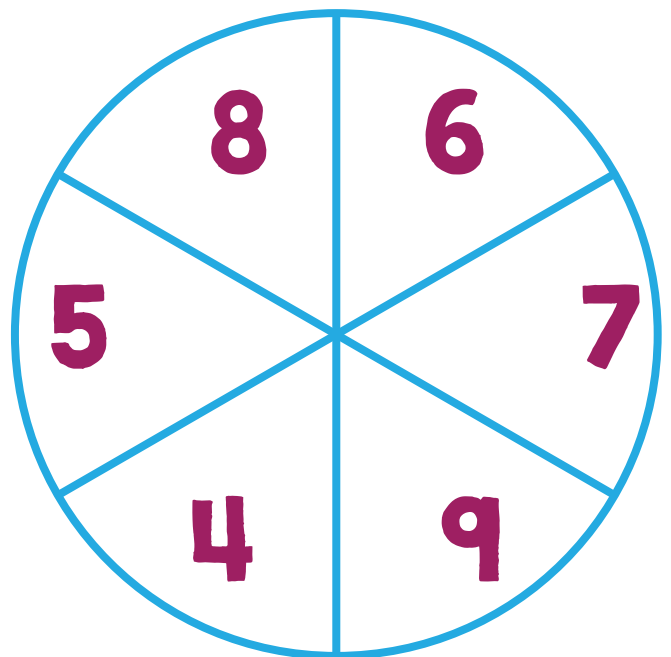
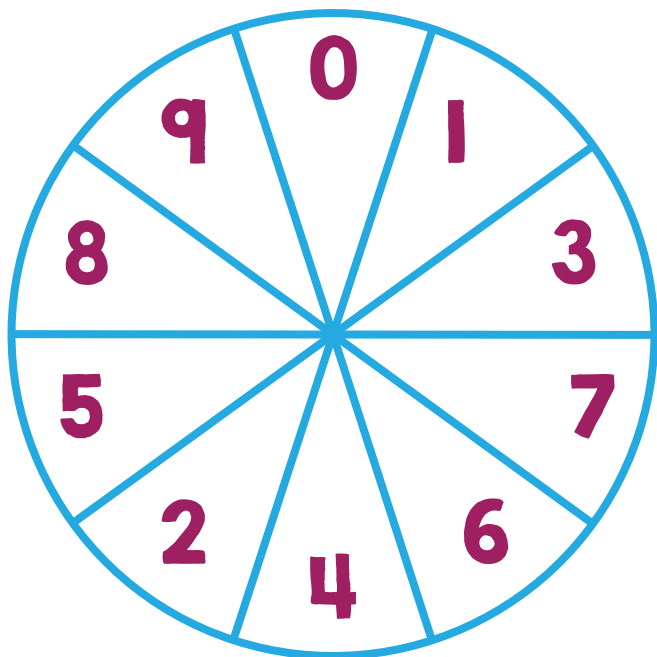
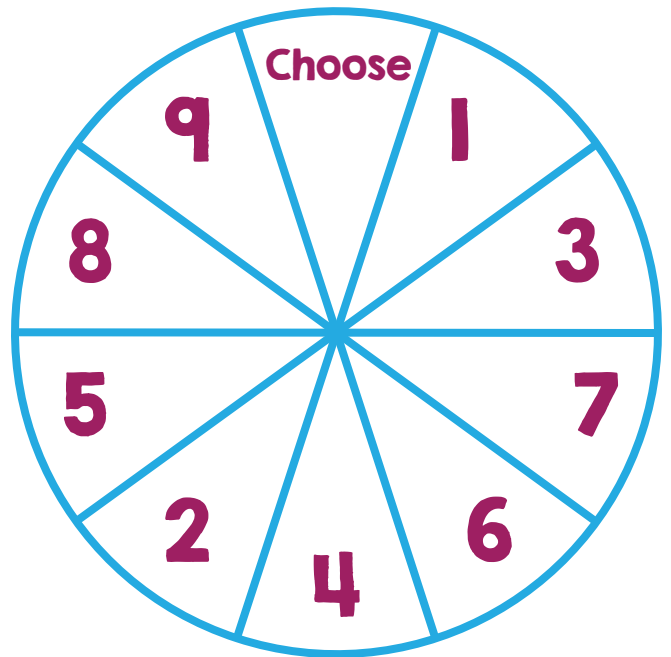
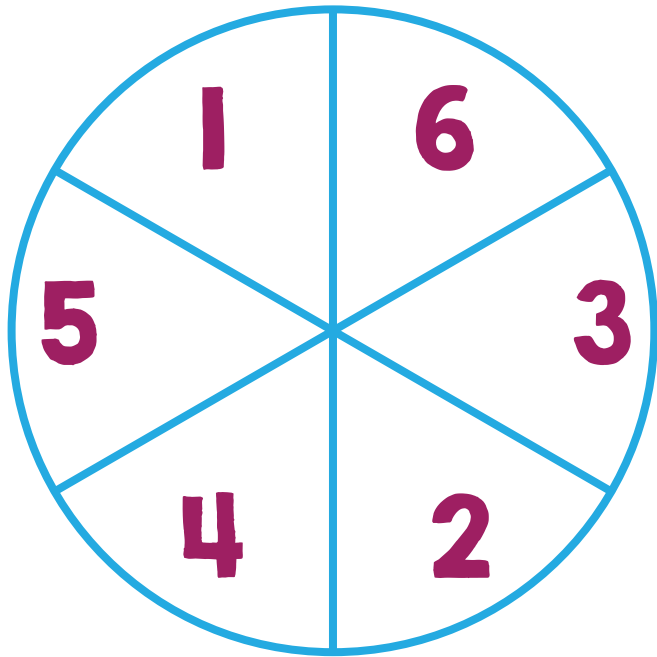
They can use the most efficient/practical one (or very often the one they feel most comfortable with). This final example shows a variety of ways to do the same problem mentally.

## Problem:

For his break, Charlie buys a banana at 36p and a bottle of water at 48p. How much does he owe the shop?

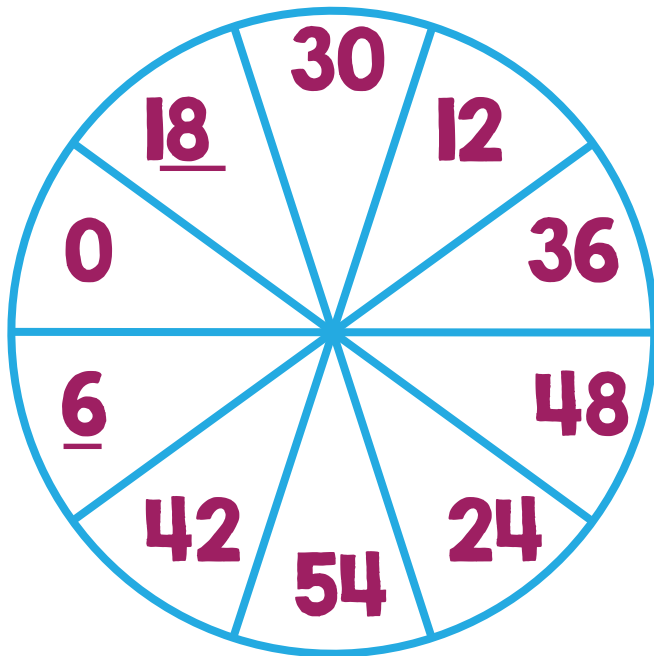


# Spinners

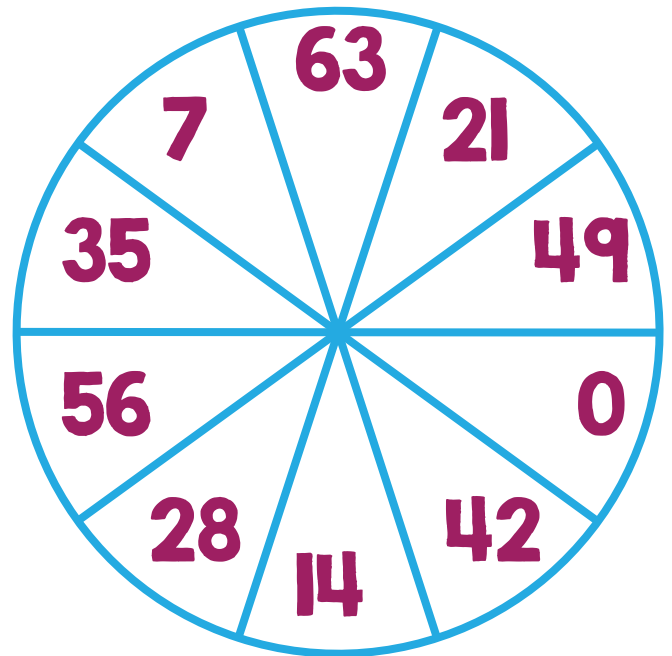


# Spinners

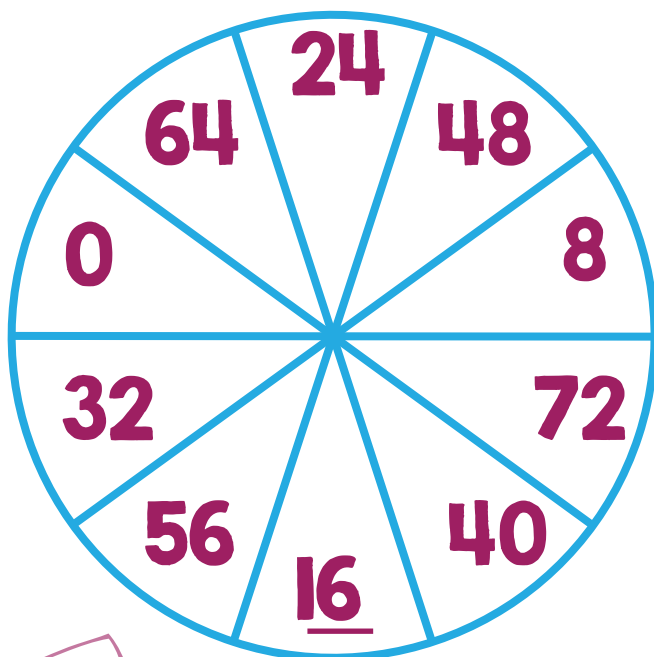
“Multiples of 6” Spinner



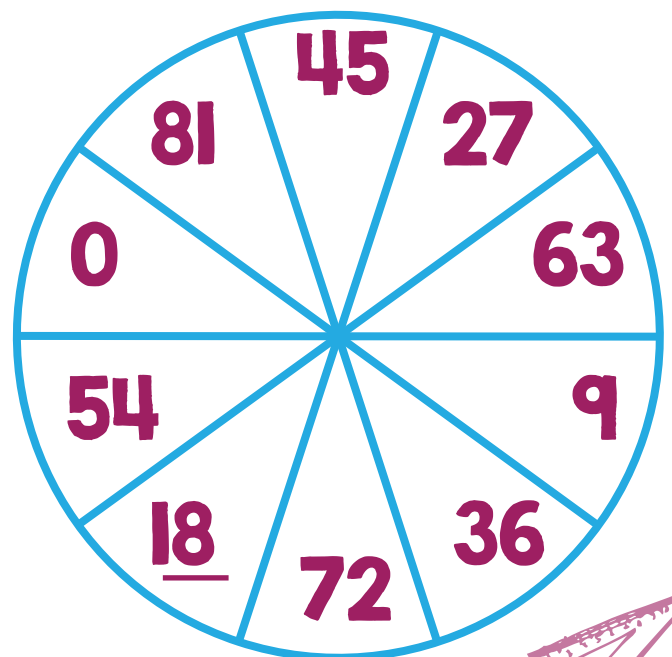
“Multiples of 7” Spinner



“Multiples of 8” Spinner



“Multiples of 9” Spinner



## Back Over the Bridge 42

38	36	34	35	37
34	37	38	33	38
37	36	33	34	36
34	35	37	38	35
33	38	35	36	37

**Aim:** Cover three in a row with your counters.

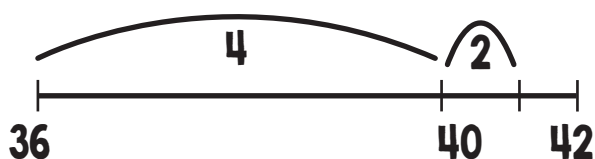
**Materials:** Board game, two kinds of counters, cube or spinner 4-9

**How to play:**

1. Player one rolls or spins to determine the amount to subtract from 42.
2. Player says the subtraction number sentence and places the counter on the answer.

Get player to draw out the answer on an ENL

E.g.  $42 - 6$



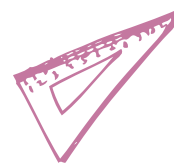
3. The next player rolls or spins, subtracts, and places the counter on the answer.
4. Players take turns until one player has 3 counters in a row.

## Factor Me In

1	5	7	4	9
3	0	6	2	7
5	4	8	1	4
9	8	5	3	6
7	6	2	9	8

**How play:** (Use the “multiples of \_” spinner).

1. Divide the number you spin by the factor listed above the spinner. Use a marker to cover the unknown factor (quotient).
2. Winner is the player who covers 3 in a row. For example: If you are playing factoring by 7 and you spin 56 on the “Multiples of 7” spinner, you would cover 8.



## TUTU Adding Bridges

50	71	61	73	94
82	62	85	83	52
71	61	73	94	82
62	85	83	50	71
61	73	94	82	62

**Aim: Cover three in a row with your counters.**

**Materials:** Board game: Two kinds of counters or dry white markers and two blank dice.

Mark Dice 1 ( 27, 48, 39, 27, 48, 39 )

Mark Dice 2 ( 23, 46, 34, 23, 46, 34 )

**How to play:**

1. Player one rolls Dice 1 and Dice 2 eg. 48 & 34..

2. Player 1 works out answer using an ENL.

Get player to draw out the answer on an ENL

E.g.  $48 + 34$



Refer to page 21 for other typical strategies

3. Player 1 covers number 82 on the board.

4. Player 2 takes a turn and repeats.

5. Players take turns until one player has 3 counters in a row Horizontally, Vertically or Diagonally.

## TUTU Takeaways

54	39	48	16	45
27	54	39	48	16
45	27	54	39	48
16	45	27	54	39
48	16	45	27	54

# 72

# 72

**Aim: Cover three in a row with your counters.**

**Materials:** Board game: Two kinds of counters or dry white markers and one blank dice.

Mark Dice ( 24, 33, 45, 56, 18, 27 )

**How to play:**

1. Player 1 rolls Dice and takes away from 72.

2. Player 1 works out answer using an ENL.

Get player to draw out the answer on an ENL

E.g.  $72 - 45$



Refer to page 21 for other typical strategies except this time subtract instead of add.

3. Player 1 covers number 27 on the board.

4. Player 2 takes a turn and repeats.

5. Players take turns until one player has 3 counters in a row Horizontally, Vertically or Diagonally.

# 72



## 50 Grid and 3 Dice

You have to try and get 4 numbers in a row, horizontally, vertically or diagonally. At the same time try to stop your partner from getting 4 in a row.

You need:

3 dice

A 50 grid

Counters or cubes of 2 different colours

How to play:

Take turns at throwing 3 dice

Use the 3 numbers and +, -, X and / or ÷ to make the number you want.

Eg. if you throw 1, 4 and 3, some numbers you make are:

$$8 : 1 + 4 + 3$$

$$2 : 1 + 4 - 3$$

$$13 : 3 \times 4 + 3$$

$$1 : 4 \div 1 - 3$$

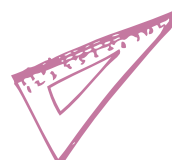
etc

Take time to think of many different solutions before you decide which is best for you.

When you have decided, place your counter on that number on the grid.

The winner is the first person to get 4 counters in a straight line!  
(Shorter game - play first to get 3 in a straight line)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



## The Fab Four

24	16	12	32	20
32	4	36	24	28
20	28	16	8	12
36	8	32	0	24
12	28	20	36	16

**How play:** (Use a 0-9 spinner or number generator).

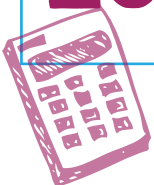
1. Multiply the number you roll or spin by 4. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.

## A Bunch of Fives

35	15	30	0	25
10	40	5	35	45
25	45	20	40	15
30	10	45	20	40
20	35	15	30	25

**How play:** (Use a 0-9 spinner or number generator).

1. Multiply the number you roll or spin by 5. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.



## Hit for 6

24	36	48	18	30
54	0	12	36	42
48	24	30	54	18
36	54	6	42	24
18	42	48	30	12

**How play:** (Use a 0-9 spinner or number generator).

1. Multiply the number you roll or spin by 6. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.

## Week Times

42	14	21	35	63
0	56	7	28	49
28	21	49	14	35
35	42	56	63	28
63	49	21	56	42

**How play:** (Use a 0-9 spinner or number generator).

1. Multiply the number you roll or spin by 7. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.



## After Eight

40	8	64	48	32
56	72	24	64	40
48	32	24	0	56
72	56	16	40	64
16	48	32	72	24

How play: (Use a 0-9 spinner or number generator).

1. Multiply the number you roll or spin by 8. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.

## All the 9's

27	54	72	18	36
63	72	18	45	81
54	36	45	72	0
9	81	63	36	54
45	27	81	18	63

How play: (Use a 0-9 spinner or number generator).

1. Multiply the number you roll or spin by 9. Use a marker to cover that number.
2. Winner is the player who covers 3 in a row.



# Useful Websites/Links

Website Address	Details
<a href="http://nlvm.usu.edu/en/nav/vlibrary.html">http://nlvm.usu.edu/en/nav/vlibrary.html</a>	Go to PreK2 Base Blocks Base Blocks Addition Base Blocks Subtraction
<a href="http://www.topmarks.co.uk">www.topmarks.co.uk</a>	Go to Whiteboard Resources Go to Maths KSI - loads of activities in all areas of maths OR Go to Parents Resources
<a href="http://www.clounagh.org">www.clounagh.org</a>	
<a href="http://www.ictgames.com">www.ictgames.com</a>	
<a href="http://www.mathsisfun.co.uk">www.mathsisfun.co.uk</a>	Go to Number - Multiplication
<a href="http://www.counton.org">www.counton.org</a>	Maths Trainer
Google Woodlands Junior Maths Zone	
Google Enrich Maths Problem Solving	Trial and improvement Make a picture

## Games

- Jigsaws (number)
- Interactive jigsaws in Top marks
- Go to - Parents
- Go to - Maths Games
- Playing Cards
- Money Games
- Ludo
- Snakes/Ladders
- Connect 4
- Dominoes
- Draughts
- Simple Sudoku

## Helping out at Home

### Out and About

- Plan your trip around the shops
- Recognising new coins 20p, 50p, £1, £2
- Change from 10p, 20p, 50p, £1 - adding/ subtracting
- Exchanging coins for least amount
- Sequence shopping from lightest to heaviest



### In the Kitchen

- Read analogue/digital clock
- Sharing out dinner (e.g. pizzas etc)/fractions
- Reading scales on kettle, weighing scales -working out how much to fill, get to 1kg etc
- Non uniform measuring - Baking: how many spoonfuls of flour weigh 100g etc.



### Around the House

- Talk about different shapes, squares, rectangles, triangles, circles etc.
- Estimate lengths, widths, heights etc.
- Fractions - half an apple, kit kat, sandwich etc.



Other useful materials , activities and games can be found on [www.clounagh.org](http://www.clounagh.org) and Developing Number Knowledge (Sage publications).

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